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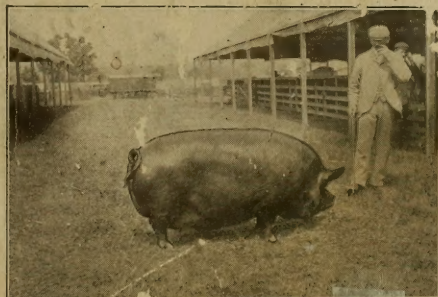
OL. 67

No. 1



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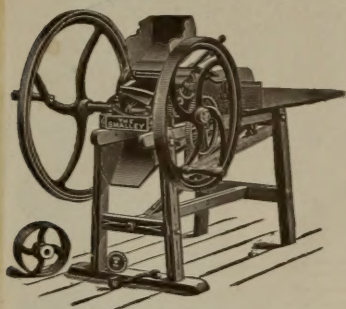


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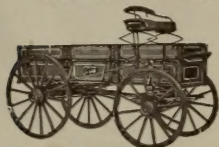
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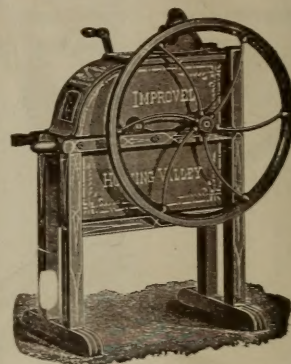
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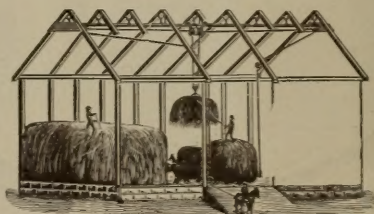
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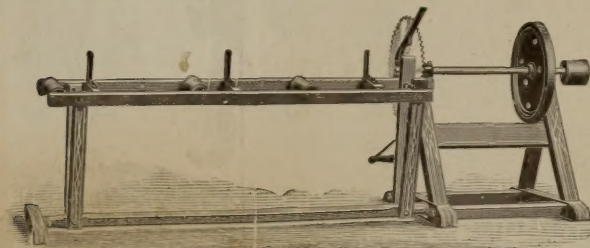
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The Southern Planter.

DEVOTED TO

PRACTICAL AND PROGRESSIVE AGRICULTURE, HORTICULTURE,
TRUCKING, LIVE STOCK AND THE FIRESIDE.

Agriculture is the nursing mother of the Arts.--XENOPHON.
Tillage and pasturage are the two breasts of the State.--SULLY.

67th Year.

Richmond. Va., January, 1906.

No. 1

1906.

In accordance with what has now become an established custom, we have again the pleasure of presenting to our readers our Annual Holiday issue of The Planter. We trust that our readers will be satisfied with the issue and that it will result, as in the past, in a great addition to the list of our regular readers. We have printed a large number of copies in excess of the number called for by our large list of subscribers in order that we may be able to commence new subscribers with the January number and have a surplus to distribute amongst those desiring to see a copy of the Journal. We shall esteem it a favor if our friends and subscribers will send us the names and addresses of farmers in their different sections who are not now readers of The Planter, in order that we may be able to send them copies of this issue with a view of inducing them to become regular readers. Whilst in the past few years we have added thousands of names to our already large list of subscribers, we yet desire to add more. Not one-tenth of the farmers of the South who ought to read The Planter yet do so, nor do a very large number of them ever read any other agricultural journal. Until they do so, they will never achieve the success in their calling which is within their reach. The outcry against "book farming" is not now heard with the intensity and reiteration formerly so common. Men now realize as they have never done before that "knowledge is power" and that only those who read and apply what science has done and is doing for farmers can themselves expect to make the profits in farming which the calling is capable of yielding. The

successful men in all callings are those who avail themselves of all the help which can be obtained from the application of science to their endeavours.

Ever since we accepted the position of Editor of this journal, it has been our endeavour to keep prominently before our readers the work the scientists are doing for the farmers, and to so apply the teachings of these men as to make them practically available on the farm. Theory without capacity for practical application is useless, and it is here where so many editors fail in making their teachings valued by farmers. They have not had that practical training on the farm which enables them to combine scientific theory with the practical every day work of the farm in such a way as to result in profit. Our own 25 years work on the farm, before undertaking the duties and responsibilities of an editor, peculiarly qualify us to make this application and to realize and appreciate the limits within which it is possible to combine the two. The constant increase in the list of our subscribers convinces us that farmers have realized the truth of this and therefore support The Planter, and urge their friends to take and read it, and this without the stimulus of premiums and gifts with the journal, which we have always eschewed. We believe that farmers have realized that in The Planter for 50 cents per year they get full value for their money, and surely this is so when, for that sum, they get as they did last year nearly 1,000 pages of interesting matter in the year, as against 600, which is all we guarantee them. Every copy of The Planter costs us, in actual payments for paper and printing

alone, 50 cents per year, and we cannot, therefore, afford to either give premiums or accept less than our subscription price, unless some other valuable consideration moves us to do so. No farmer who has that interest in his calling, which every one should have in that which means his daily bread, can honestly say that he cannot afford 50 cents per year for *The Planter*. The profit made on a single hen in a year will pay for the *Journal*. We rarely hear the remark that they cannot afford to take the paper, but we do have many to say that they cannot find time to read it. If these men who say so will only make time to read it, they will find that they will be much better off at the year's end, and have saved much in hard labor and toil. Brawn without brains is the worst paid labor in the world, and always will be. Without reading and study men can never get the best rewards for their labor, and this is especially true in the case of the farmer. We have almost daily illustrations of this truth. Amongst our subscribers are numbers of farmers of whom it is the common remark in this office amongst our clerks that these men never grumble when they call. They are always cheerful and ready to confess that they are doing well and living comfortably. Without exception these men are reading farmers. They always know what is in *The Planter* from cover to cover, and are ready to discuss the problems under consideration in an intelligent and understanding manner, and are applying the lessons taught to their daily work on the farm with profit to themselves.

We want to secure thousands more of such readers, not merely for our own profit, but for the advancement of the agricultural welfare of the South. Notwithstanding the fact that the mineral wealth and the manufacturing industries of the South are great factors in its advancement in all material things, yet the outstanding fact is, and always will be that the South is an agricultural section and that this factor will determine its position in the country and in the world. Agriculture in all its diversified forms, is, and will be, the greatest source of wealth in the South, and only the inability of the farmers of the South to properly utilize science in the advancement of their calling, will mark the limit of this wealth. When every farmer's son receives instruction in the elementary principles of agriculture in the common schools, and is thus prepared to read, understand and apply the teachings to be found in the pages of *The Planter*, and appreciate the further instruction which he can obtain in the course of study open to him at the agricultural college of the State in which he lives,

then shall we see a cessation of the migration from the farm to the cities, and then also shall we see the farmer come into his own. Hasten the day when this shall be the case throughout the South! Every farmer should work for this, and if he does so, he can have it quickly.

We intend to continue the several departments under which the work of the farm has been discussed, as they have been in the past issues of *The Planter*. These will each be kept fully up to date in the information which they contain. Special attention will be given to the "Work for the Month" and the "Enquirers Column." These two have in the past always received the highest commendation as being preeminently useful to every farmer, and we especially invite communications for and constant reference to the Enquirers Column. In the course of the year, we answer thousands of Enquiries on the practical work of the farm in all its branches, and these will be found in the future, as in the past, of inestimable use to farmers. The information contained in this column is worth, to every farmer, many times the cost of the *Journal*. Our advertising patronage is now so large that no farmer need ever be at a loss where to buy what he wants or to sell what he has to dispose of, when he has *The Planter* on his table.

CLUBS WITH OTHER JOURNALS AND MAGAZINES.

In every issue of *The Planter*, in the Advertising Department, will be found a list of other Journals and Magazines which we can supply at reduced rates along with *The Planter*. Whilst the list contains only such Journals and Magazines as are most commonly called for by our subscribers, yet, if other papers or magazines, not mentioned in the list, or Books on Agricultural subjects are desired, we shall be glad at all times to make quotations of prices on these in conjunction with *The Planter*. We have arrangements with almost all the publishing houses in the country, under which we are enabled to make most reasonable prices on whatever literature is desired by our subscribers. A reference to the list of Reports and publications received by us, which appear in each issue, will enable every farmer to keep himself posted on the special literature published by the Department of Agriculture and the Experiment Stations on the dixerent crops and live stock of the country, and these reports he can there see where to obtain. We receive Reports from every Experiment Station in the country, and note these in the list as they appear. Farmers should watch this list.

Farm Management.

WORK FOR THE MONTH.

The weather, up to the date of this writing (14th Dec.), has been mild and open with a continuance of the absence of rain, which has characterized the whole of the fall months. For the season of the year, the soil is exceedingly dry, and there is a great absence of water in the subsoil. Where land has not been plowed so as to catch and hold the slight rainfall we have had, there is in the land scarcely sufficient moisture to sprout anything. On land broken early for wheat and winter oats, the rainfall has been conserved and these crops are looking well and healthy, but with only a moderate growth, yet, amply sufficient for promise of a good crop, and with less risk of being injured by frosts than if the ground was full of moisture. The report of the Department of Agriculture just received, shows the fall seeded crop of wheat as 31,341,000 acres, an area very slightly in excess of that sowed in the fall of 1904. In Virginia, the crop seeded is 758,193 acres; in North Carolina, 595,185 acres; in South Carolina, 328,128; in Maryland, 812,904 acres; in Tennessee, 895,599 acres, and West Virginia, 388,122 acres. The crop seeded in these six states is 323,483 acres in excess of that seeded in the fall of 1904. We are glad to see this increase in the area of the land devoted to this crop in these States. It is time for the South to be making at least the wheat that is needed for its own consumption, and an increase in area, similar to the one made this year, each year for a few years, will bring this about. This change in the crop system of the South by the substitution of the cereals for cotton and tobacco, means much for the advance ment of Southern agriculture, as these crops are usually the precursors of clover and grass, and mean the keeping of live stock in greater numbers and the gradual improvement of the crop productive capacity of the soil. It also means the keeping at home of much money sent North and West for the purchase of supplies. The condition of the wheat crop throughout the country stands at 94 as compared with 82 in 1904, and 80 in 1903, and a ten-year average of 91. This is a distinct gain in condition and illustrates forcibly what we have so repeatedly stated—that a dry seeding time is infinitely better for the wheat crop than a wet one. We have no definite data as to the winter oat crop seeded, but from what we gather from our correspondents, should estimate it at less than the average. Many

have been deterred from sowing by the dry condition of the land, causing difficulty in plowing and preparing the land, and fear lest the seed would not germinate. What has been seeded was mostly sown early, and looks well. If winter oats cannot be gotten in in September, or October at the latest, they are better not sown, and the Burt or the Rust proof oat ought to be sown in February or March in the place. We have good reports as to the success of the Burt oat from many sections.

We have just received from the Department of Agriculture its detailed report on the production of tobacco of the different types in the different sections of the country. From this report, we find that the average yield per acre of sun cured tobacco in Virginia for 1905 was 767 pounds, with an average quality of 95 per cent., both body and quality better than in 1904. The average yield of Virginia Dark per acre was 721 pounds, with an average quality of 83 per cent. The crop was in many counties damaged by too much rain. The average yield of Bright Yellow in the old belt of Virginia and North Carolina was 575 pounds per acre, with an average quality of 81 per cent. Too much rain injured this crop and greatly reduced the quality and quantity. In the New Yellow belt of Eastern North Carolina and South Carolina, the average yield was 677 pounds per acre, with an average quality of 71 per cent. The crop is of poor quality and short in quantity from too much rain. In Maryland, the crop is less than last year and of inferior quality on account of excessive rain. The indications are that good tobacco will sell well, and the sales are showing this to be the case. On account, however, of the damaged quality of much of the product, the probability is that planters will not realize a very remunerative return on the crop.

The latest returns as to the cotton crop would seem to indicate something like a reduction of 2,000,000 bales in the crop, and the price has advanced to about 12 cents. The determination and apparent ability of the planters to hold the unsold portion of the crop as the result of co-operative action would seem to indicate that a good price will be made on this held cotton, as the demand is great, the cotton manufacturing industry being most active in England and on the Continent of Europe. It would seem likely that the whole crop will probably average nearly 12 cents per pound, which means an immense sum of money

for the South from this one crop. We trust that this will not have the effect of so stimulating the planting industry as to lead to over-production and an unremunerative crop of 1906. With conservative production and marketing, cotton can be kept at a stable price not burdensome to the consumer, but yet remunerative to the grower. Co-operative efforts to this end, not only with cotton, but with all the other staple crops, is to be commended and encouraged and planters and farmers should organize for this purpose. The prostitution of such a good work to the extent, however, of making an unnaturally high price for any staple, and thus limiting the consumptive demand is, however, to be condemned as it must react on the producer.

The work that can be actually done on the farm this month is practically very little, as January is usually our most wintry month and snow and frost may be expected to keep the teams largely in doors. The care and feeding of the stock should have constant attention, so that they may be well fortified within from the effects of the cold. Whilst good shelter from inclement weather is always conducive to the well doing of the stock, and saving of food, numerous experiments have shown that when stock are well fed with a well balanced ration, mere cold, apart from snow and rain, has but little injurious effect on the well doing of animals. Where the internal furnace is kept well supplied with good fuel, and dry beds provided, the animals can keep out the cold and prevents its being a drawback to their profitable use of the food eaten.

See to it that an abundant supply of long feed is always kept at or near to the barn so that in the event of very severe or stormy weather, it will not be necessary to have far to haul same. Handling wet and frozen feed is unpleasant work and stock is very apt to be stinted when it becomes necessary to resort to this.

If the weather should be mild and dry, teams should be kept at work plowing and cleaning up land intended to be cropped this year. The plowing of land is, as a rule, very badly done in the South, and yet, upon its being well done, largely depends the successful production of crops. Too often it is thought to be sufficient for the greater part of the land to be broken in any fashion, and many fields, when the plowing is finished, look more as though they had been rooted over by hogs than plowed by man. Such

work as this can never result in the making of good crops. Every inch of the soil should be moved and be moved to the same depth and be uniformly broken and mixed if the best results are to be obtained. Where some of the seed has a loose seed bed of 6 or 8 inches into which to send out its roots, and other seed has only 3 inches of loose soil and still other seed no loose soil at all to work in, the result must necessarily be an uneven growth and an uneven ripening, and consequently, an uneven and poor yield, which will never sell well on the market. The object of plowing the land is not merely to turn over the surface soil, but to open and bring into contact with the air and sun, soil not previously amenable to these influences, and therefore incapable of giving up its plant food. It is also essential that it should open out the close texture of the soil and thus permit of the absorption equally of the rainfall. Inattention to these requisites of good plowing, is largely responsible for our low average yields. In England, where plowing has always received the greatest attention at the hands of farmers, and where plowing matches are a regular feature of the Agricultural Fairs, and are participated in by scores of contestants it is a most instructive and pleasing sight to look over scores of acres of land, every inch of which has been plowed to an exact depth and every furrow laid as straight and as even in width as though laid down by a parallel rule. When such land is seeded, every seed is given an equal chance for germination and growth and the result is a perfect stand and equal growth and ripening. This largely accounts for the excellent average yields of grain made in that country. Of wheat, the average yield in 1905 was 35 bushels to the acre as against our 14, and the same increase over our yields is true of barley and oats. The effect of this good plowing is also seen in the stands of clover and grass secured after the grain crops, which make heavy crops of hay and pastures carrying a steer to the acre. There is no reason whatever why we should not make equally as good yields here if proper care is taken in preparing the land, and the first step in this preparation is good plowing. If the plowing be not well done, no subsequent cultivation of the land can correct the defects. It may tend to lessen the evil but can never remedy it entirely. See to it, then, that the first step is well taken. Use a strong plow capable of turning heavy furrows, have the share sharp and see to it that the team is so hitched as to pull from the point of the shoulders, so that the plow will run on an even keel and be capable of being adjusted to a nicety by the plowman with-

out wearying him by constant efforts to keep it running at the same depth and the same width. We have followed the plow for hours together without ever having had to vary the pressure on the one hand or the other, and this pressure was of the lightest character; indeed, we have many times run the plow a whole furrow in length without ever touching the handles after setting in at the end. Such easy work, however, necessitates a very steady team and land entirely free from rocks and roots. Do not plow around the field, but lay off in beds and plow from end to end of these beds. If the land is wet or liable to flooding, lay off in narrow beds and throw the middle furrows well up so as to make the beds round and thus ensure drainage, and make the furrows between the beds deep to carry off the water. If the land is dry and not subject to flooding, lay off in wide beds and keep level with shallow furrows between the beds.

It is impossible, in plowing a field in the method so common—of going round and round—to plow all the land and leave the field level and all equally fitted for a seed bed, while the center of the field will necessarily be trampled nearly as solid as though it had never been plowed. Plowed in beds from end to end, the land can be so laid off as to drain thoroughly and every inch of it can be plowed and left level. When the beds are all plowed, then plow out the head lands on which the team has turned and thus leave the whole field presenting a picture of a workmanlike job, and in the best shape for being a perfect seed bed.

Get out lime and manure on to the land whenever it is dry enough to haul on. Lime requires time for its good effects to be seen, and, therefore, the earlier it is gotten on to the land the more satisfactory will be the results. Apply the lime on the land after it has been plowed and harrow in lightly. Manure from the stables and pens should be gotten out as often as practicable. It will do much more good on the land than lying leaching in the yard or pens. Usually, manure pays best applied on a sod for corn. The corn plant, with its vigorous root system and strong growth, can better utilize rough manure than any other crop. When you have manure that has partially or wholly rotted, and can be broken finely, this makes an excellent top dressing for wheat and winter oats or a grass sod, and should be used for that purpose.

which has not been under arable cultivation. In doing this work, make a complete job by thoroughly rooting out all old stumps, rocks, bushes and briars, and haul them off the land or burn such of them as will burn. Do not leave stumps and rocks to break implements and tools and to be harbors for weeds, insects and fungoid diseases. As far as possible, make the fence lines straight, and thus conduce to easier and more perfect cultivation of the crop, and have less waste land in the fields. Fence corners are always weed producers and make labor in keeping the crops clean. Reduce the number of the corners as much as possible. Straight fences look better than crooked ones, and take less material to make them.

In stormy weather clean up tools and implements and give them a good oiling on the iron and steel working parts and a coat or two of paint on the wood-work. This will make the implements last years longer and save much money. Now that labor is scarce and dear, implements and machines must take their place and these ought to be much better cared for than is customary on most farms. We know some farmers who make their binders, mowers and implements and other tools last years longer than their neighbor's, but these men never leave their implements and machines out of doors where they have been last used, and care for them under cover with oil and paint.

Virginia farmers could well use some of their leisure time at this season of the year in meeting together and discussing problems affecting their welfare, and taking action to induce the Legislature, which meets this month, to give some attention to their wants. Particularly should they give attention to the wants and needs of the Experiment Station and Agricultural College at Blacksburg. An article in this issue points out the work which is now being done there, and well done for the advancement of the agricultural interests of the State. The Station needs money to do this work. The State has never yet made any appropriation to supplement the money appropriated by the Federal Government for the support of the Station. It ought to do so, as the Federal appropriation is not sufficient to carry on the work as it ought to be done. This was fully and freely recognized and admitted by the hundreds of farmers who attended the Farmers' Institute held at Roa

Clean up land intended to be cropped this year,

noke, and who afterwards visited the Station and were astounded and more than pleased at what they saw. They unanimously concurred in a memorial to the Legislature to supplement the Federal grant, and for money to complete the Agricultural Hall. We want every farmer to constitute himself a Committee of one to urge upon his Delegate and Senator to make this appropriation a liberal one. Other States supplement the Federal grant by appropriations of \$10,000, \$15,000 or \$20,000 each year, and this State can now well afford to do likewise. There is a surplus in the Treasury, and there will be an additional revenue of nearly \$100,000 this year, as the result of the recent revaluation of the State. No addition taxation will be needed to meet a liberal appropriation for the Station and College, and farmers have only to assert their claims to secure this. We would also like to see an effort made to secure an appropriation for the work of eradicating the Texas fever tick from the State. We had recently the opportunity of a conference with the officials of the Bureau of Animal Industry at Washington on this subject, and they assured us that if the State would show its interest in the work of eradicating the tick, the Federal authorities would join hands with the State and find both money and men to help to get rid of this terrible menace to our live stock industry, which costs the farmers of the State thousands of dollars every year. With united action, the tick can be gotten rid of and the State be taken out of quarantine permanently. In connection with this matter, action should also be taken, looking to the adoption of a "no fence" law in every county. Wherever a "no fence" law is in operation, ticks rapidly disappear, and Texas fever ceases to be a trouble. The adoption of such a law also means a great saving of money to farmers in the cost of fencing and damage done to crops by straying cattle.

FRENZIED FARMING.

Editor Southern Planter:

There is no doubt that the Virginia farmer is getting into better shape every year. Almost every section of the State has been inoculated with northern and western settlers and the land is being inoculated with microbes, germs and bacteria of every description, all which have the habit—so the men of science say—to steal nitrogen, the most costly plant food, from the clouds, and store it away in burglar proof underground cellars, called nodules. So every farmer is trying now to raise a big crop of such nodules by means of leguminous plants such as cow-

peas, clover, vetches and alfalfa, and I would not be surprised if this nodule-fever is not broken soon, that in a few years we will have compulsory vaccination of our soil, instead of compulsory education of our children.

Doctors say that every disease must run its course. If this is true, then we must have patience with our rural friends who have been so badly affected by this nitrogen-manufacturing bacteria, which was discovered by a German Professor and improved and patented by an American Doctor.

As a rule farmers are slow in taking hold of new things. Would it not be advisable to act accordingly in this matter and wait until the professors and doctors have increased the size of said bacteria, so that we can see it with the naked eye and the nodules on our clover and cow-peas have the size of the nodules on our common briar roots. Seeing is believing.

Mr. Editor. Your paper has done good work for the southern farmer and your advice in many matters of our farming operations has been appreciated throughout the South. Would it not be wise to check such frenzied farming by vaccination and direct our efforts into another channel, which would save farmers millions, and prevent the ruinous, bankrupting wasting away of our soil by rain. Take for instance the James river and its tributaries. These rivers carry in their muddy waters more plant food from our soils, than the planters get in buying fertilizers to the amount of over one million dollars per year. Who has not seen our bleeding hills alongside the rivers? They look as though they had been whipped with a cowhide until the blood rose to the surface. We farmers are to blame for this, and we farmers alone can remedy this evil and make the water of our rivers as clear as those of the Hudson and the York river.

I should correct myself and not say farmers but *planters*. It is the Virginia *planter* who with his hoe-crops is responsible for all this trouble. It is impossible to make rolling land pay with crops that must be worked by hoe or cultivated to keep the land loose during the growing season. A heavy rain will wash away more soluble matter than the farmer can replace with a double team in a year.

We have no law against cruelty to land, if we had one, or if land could defend itself and kick like a mule, I am afraid, many farmers would find it impossible to obtain a life-insurance policy, although it would be advisable for many to take out an accident policy every morning before hitching up their teams to the plow.

If we have mentioned above the weak point in our farming, it should be proper to say what the remedy is, if there is one.

In the first place we must be *farmers* and not *planters*.

The Virginia planter had his glorious time when slave labor could be employed. He created the proud Commonwealth, "The Old Dominion," and prospered for over a hundred years.

Without slave labor it would have been impossible to accomplish this, because as a rule, there cannot be found *general* prosperity where planters dominate. Take the cotton, sugar, coffee, rice, and tea planting countries, and you will always find a few rich planters amongst a lot of poor ones, a few masters amongst a lot of slaves; black, brown or white.

The planter needs them, and if he cannot have them, he must be the slave himself. He must have human hands to work his crops. The farmer can use machinery to advantage, but the tobacco planter cannot even use a pitchfork or a shotgun to kill the tobacco worm or a mower and rake to cut and harvest his tobacco. All his work must be done by hand.

Would anybody say, that the phenomenal progress in our Western States was possible, if planters instead of farmers had to do it. Or can anybody deny, that the Virginia climate, soil and geographical location is well adapted to diversified farming? If not, then let us drop a system of so-called farming, that has at the present time no more right to existence, than coffee planting in North Dakota. The New Dominion which is growing on the ruins of the Old Dominion is not resting on the shoulders of planters, slaves and tobacco hogsheads; its foundation is a solid one, composed of farmers manufacturers and free labor.

That this is the opinion of many, may be proven by the fact, that of all the Northern and Western settlers, who have made Virginia their home, hardly 10% will raise any tobacco and I do not know of any "Agriculturist" who has taken tobacco as his hobby to get rid of his surplus money. I do not say, that we must at once stop tobacco growing, but say positively that in the future the Virginia tobacco planter will have to play the second violin, if he is allowed to play at all. Let us compare the amount of money, that the Virginia tobacco growers get for their crops with the sum, that Virginia merchants send north and west for such products as hay, corn, flour, meat, etc., and we will be surprised how little is left to their credit. Instead of being a seller of such farm products, he is a buyer. His teams convey the northern and western products from the cities or states to his farm, while in the north and west, the farmer's wagons carry such products to the city. This will not do. We must stop that leak in our pocket. We must bring our hay barn, our corn crib, our smoke houses away from Chicago or Minneapolis to our own farm. We must stop cultivating hilly land

with hoe-crops and raise clover, alfalfa or grass on it; we must not plow our land shallow with a 1 horse plow, but deep, using a subsoil plow if possible we must not lay by "our corn land, but cultivate it level; we must not let our land lay bare during the winter season, have a crop on it—even rye will do,—to prevent it from washing, and if we do this, we will stop that big leak and in after years the water of the James and its tributaries will be as clear as in the days when Captain Smith sailed its placid water and reported to his master, that he had discovered a land, where the sun had kissed the earth.

Dunwiddie Co., Va.

W. GROSSMANN.

We are entirely with our correspondent in his plea for "farmers" in the place of "planters" and for deep plowing and covering of the land with a crop all the year round, to prevent washing and erosion of soils and have written many pages of matter in support of these views in the past 20 years. We, however, cannot go with him in his desire to check the spread of the scientific doctrine of inoculation of the soil with microbes and germs. We have seen too much of the value of this doctrine to doubt its efficiency. Long before the German "professor" and the American "doctor" became conspicuous by their discoveries of the value of inoculation of the soil we had pointed out in this journal and emphasized the fact, that something more than the plant food value in farm yard manure or in clover was a factor in the good results obtained from the use of manure and clover as improvers of land, and that factor we asserted, was the inoculation of the land with germs or microbes playing an important role in the productive capacity of land treated with these improvers. Science has since demonstrated the truth of our contention.—Ep.

LIME NEEDED ON SOUTHERN SOILS.

Editor Southern Planter:

The large number of interesting articles on soil acidity and liming that have appeared recently, tempt me to add another on this, one of the fundamental factors in agriculture.

After tillage, I regard the reaction of the soil as the most important controllable condition governing economic crop production. Where the soil is acid, so much more drainage, cultivation, manures and fertilizers must be given to produce the same results that are required on alkaline soils, that the value of the increased yields thus secured are largely swallowed up by the extra expense of production, thus making the profits from large crops very small.

While much has been written on this subject, and but little that is entirely new can be said, as it has been quite thoroughly investigated from all stand-points, a brief general statement of the effect of lime on acid soils may be of interest to your readers and help to make clear certain important points.

Alkaline soils have a better physical condition, they are more porous, air and water penetrate them more easily, they are more easily gotten in condition, more easily tilled and warmer than acid soils. Alkalinity increases the solubility of potash and of phosphoric acid, promotes nitrification and the fixation of nitrogen by bacteria, while the activity of many disease-producing fungi is checked. Plant roots grow better in alkaline than in acid soils, and finally, certain lime compounds exercise a wonderful and but little understood function in the juices of the plant against the poisonous influences of other substances. These are the reasons why lime, which is the cheapest alkali, has produced such marked results on acid soils. All of these facts are thoroughly established. Lime should not be used indiscriminately, without knowing that it is needed. Fortunately, I have been able to work out reliable methods with which to determine whether a soil is acid, and if so, how much lime is needed to make it alkaline. As these methods could not be executed by the farmer, it is needless to describe them here, as they can only be worked by the chemist. I may say, however, that I have long since abandoned the litmus paper test and have absolutely no confidence in it in the hands of the farmer, not because it is so delicate, as has been suggested, but because it is not delicate enough. The explanation of the fact that certain soils are acid on the surface after liming, I think, is this: I have shown elsewhere that when lime is applied to soil, it does not neutralize the soil acids below the depth to which it is worked into the soil. Now, in working corn, or other crops, the lime is not mixed deeper than three or four inches, and in plowing the following spring, the soil is turned over, bringing to the surface, soil which, of course, gives an acid reaction. Crimson clover, and other rather sensitive plants, however succeed again the second year; first, because they can grow on slightly acid soils, and second, because the roots can reach the turned under limed land.

While it is true that only in the laboratory can the reaction of the soil and its lime requirements be definitely determined, the experienced can form quite an accurate opinion from the general appearance and behavior of the soil, and from its vegetation, as

to the general character of the soil, whether it is alkaline or acid. Compact, impervious soils, or those which will not grow red clover or alfalfa, are generally acid, as are also those upon which common red sorrel grows.

Having determined that the soil is acid, the first question asked is, "How much lime shall be applied?" As I have said, we can now answer this question. That is, we can determine how much lime is necessary to make the soil alkaline, and it is upon alkaline soils that the best crops are to be expected. To be able to answer this question, is a great step forward. Money need not be spent in applying 50 bushels per acre where 25 would do. Nor need we fail of the full effect by applying too little. I have known thousands of plants to be killed, which a preliminary examination of the soil and the application of the required amount of lime, would have saved. In pot and plot experiments, I have obtained larger crops of clover, alfalfa, cowpeas, tomatoes and lettuce on soils made alkaline than on soils to which not enough lime was applied to make them alkaline. The Ohio Experiment Station has obtained larger yields of corn, wheat, oats, timothy and clover on completely neutralized plots than on plots partially neutralized. Another question is "In what form shall lime be applied?" To this it may be replied that when very finely divided, that is, in the form of fine dust, freshly burned lime, hydrated or slaked lime, and ground limestone, in proportion to the actual lime which they contain, have practically the same value. This question, then, revolves itself into one of dollars and cents, and one can readily tell which is the cheapest to use; 56 pounds of burned lime, 74 pounds of slaked lime and 100 pounds of ground limestone, each of these contain the same amount (56 pounds) of actual lime.

The great importance of the reaction of the soil in economic agriculture, is grasped by few. Most of the soils of the Eastern and Southern States, together with much in the Mississippi Valley, are acid and greatly in need of lime. They owe their impoverished condition to this fact and to bad tillage. They are hard to till and easily gullied and washed away, because they do not contain enough lime to make them alkaline, which would give them a great tilth and allow the rain to sink in rather than to lay on the surface and carry away the soil by the ton when it runs off. On such soils as these, in Maryland, I have frequently known the use of lime to give a yield in the second rotation double the yield of the first; the rotation consisting of corn, wheat two years, clover and timothy.

In the South particularly is the need of lime great. On the flat acid soils, low in organic matter, drainage is exceedingly poor, while on the rolling lands, erosion and washing away are equally as bad. The swamp lands too are very acid and need lime. All of these conditions could be overcome in a measure by the proper correction of soil acidity, which would not only make the soil more porous, but would enable the farmer to grow more soil protecting legumes and grasses. The hot climate is not the only cause for the failure of clover, alfalfa and the grasses in the Eastern and Southern States. They are grown on the alkaline soils of Texas and Mississippi, and, I am certain, can be grown to advantage in the Southeast, when this controlling condition—soil acidity—is corrected. When this is done, uncultivated fields will no longer lay bare and the forage problems of the South will be solved.

F. P. VEITCH.

Washington, D. C.

SOY BEANS IN ALABAMA.

Editor Southern Planter:

I take it that we have too many good farmers in the South Atlantic and Gulf States for this note to go unnoticed by those for whom it is particularly intended. It seems to me unfortunate that you should say that soy beans will not make a good growth without artificial inoculation. We have grown them here very successfully without any such preparation, and on land where perhaps no cultivated legume has ever grown. You are perfectly right in recommending inoculation, but there are many farmers who would try this valuable plant if they were not made to believe that it is absolutely necessary to undertake this procedure, about which they know so little.

Our observations do not warrant anything very definite, but we have no hesitation in saying that while the effects of pure culture inoculation may not be in every case of benefit to the immediate crop, it is, in many instances, very beneficial to succeeding crops of the same family (leguminosæ). We do not, therefore, hesitate to recommend some method of inoculation, generally speaking, but farmers should avail themselves of any opportunity to study experiments of this kind. We hope to report later the effects on the land of the above mentioned crop of beans.

L. H. McCULLOUGH, Director.

Experiment Station, Wetumpka, Ala.

Whilst we have not asserted that it is impossible to

grow Soy beans without inoculation on land where the crop has not been before grown, as our own experience satisfied us that this could be done in some cases, we have had so many reports of failure to succeed on such land that we felt compelled to urge that the attempt should not be made without inoculation.—Ed.

A SUCCESSFUL IRISH POTATO CROP.

Mr. W. H. Massie, one of our subscribers, living in Allegheny county, Va., writes us, giving particulars of an Irish potato crop made by him this year, which was so great a success that we desire to give it publicity. The land on which the crop was grown was a clover and timothy sod, containing 8 acres, and was plowed in December and January. The land was prepared and the sets were planted the last of April with the Aspinwall planter. No fertilizer or manure was applied. The varieties planted were Green Mountain, Empire State and Vulcan. The crop harvested was 1400 bushels of the finest potatoes. From 155 bushels of sets planted, Mr. Massie made a total crop of 2255 bushels, an average over 14 acres of 161 bushels to the acre, and this without the use of any fertilizer or manure. The crop made showing what a great factor in successful Irish potato grows is a clover and grass sod, ensuring an abundance of humus in the soil, and the presence of nitrogen sufficient to feed the crop throughout its period of growth. Evidently, there is also an abundance of available potash in Mr. Massie's land, otherwise such a good crop could not have been made.

AGRICULTURAL IMPLEMENTS.

The development of agricultural implements and machinery has been very closely connected with our agricultural development and the increased economy of production. It is calculated that in 1830 over three hours of labor were employed in growing a bushel of wheat while in 1896 the labor aggregated only ten minutes; in 1850 the labor represented in a bushel of corn was four and one-half hours, while in 1894 it had been reduced to about forty minutes. As compared with the cost of production in 1830-50, modern machinery now grows crops for less than half, although operated by men who receive twice the wages formerly paid. Furthermore, the general quality of the product is better and it is handled in a more cleanly manner. The American farmer buys annually \$100,000,000 worth of farm implements and machinery.

Trucking, Garden and Orchard.

WORK FOR THE MONTH.

Whilst it is too early to think of planting any crops in the garden or truck patch, except in South Carolina, where radishes and lettuce may be sown in the open ground, it is not too early to be making preparation for the crops to be planted later by getting ready the compost heaps to be used on those crops. These should be made up of barn-yard manure, leaves and other vegetable trash and good rich soil from the woods and hedge rows and to these should be added acid phosphate and potash with a liberal hand. All vegetable crops are great consumers of phosphoric acid and potash and these to be available at once for the crops require to be applied some time before the crops are planted as they only become slowly available. The best way to do this is to mix the acid phosphate and potash in the compost heap and then to apply liberally. There is no danger of the phosphate or the potash being leached out or lost, but they will become in an available condition for the immediate use of the crops. Acid phosphate may be used at the rate of 750 to 1,000 pounds to the acre and muriate of potash at the rate of 100 or 200 pounds to the acre. In making the compost heaps the material should be spread out in layers and on each layer phosphate and potash be sprinkled freely, and then when the heap has been thus completed it should be allowed to stand ten days and then be turned over, thus thoroughly mixing all the materials together. It may then stand a month longer and then be hauled on the land and be spread broadcast from the wagon and be worked into the land with the harrow or cultivator. The rows for the crops should then be laid off and stand ready for planting at the proper time. Lay off the rows running north and south as far as possible and then each side will get an equal share of sunlight, and lay them off carefully so as to preserve an equal distance between them and have them straight so that horse cultivation can be effectively done and hand-hoe labor be saved. Previous to planting any seed or crop freshen up the rows by running the cultivator in them and thus make a fine seed bed. After the crop has commenced to grow freely, give a dressing of nitrate of soda at the rate of 100 pounds to the acre on each side of the rows, being careful not to put the nitrate on the plants as it will burn them if they are damp, and it sticks to them. This will quickly melt and start rapid growth. Do not be in too great a hurry to start working the land if it be at all wet.

Land plowed or worked while wet simply means land spoil for this season's crops and often the effect is seen for more than one season. Let the land become sufficiently dry so that when a handful of the soil is taken up and squeezed together it will make a ball that will just hold together until it is dropped on the ground and will then at once crumble to pieces. When land is in this condition it is right for working and planting.

Lettuce and other early crops in frames should have air when the weather is mild, but lookout for frost and have ready mats of straw or brush to cover the frames in case of a hard freeze.

Make ready some fine rich soil to fill seed boxes for starting the seeds of early spring crops in the hot-bed. Onion plants for setting out in March should be raised in this way and be hardened off gradually ready for planting. The seed should be sown at the end of this month or first of February.

In the orchard and bush fruit plantation much work may be done during the winter months. All the trees should be carefully looked over and every scrap of fire blighted wood be cut out of pear and apple trees. The branches blighted can be easily identified by the old dead leaves hanging onto them. Cut out six or eight inches below the point to which the blight has extended and burn all blighted wood. Care in doing this work will greatly reduce the attacks of blight in the spring and summer. Cut out all dead wood and branches that are overlapping each other and open out heads of trees to admit sun and air. Clean off all moss from the trunks and branches and as soon as the weather becomes mild enough spray or wash with a lye wash and later with Bordeaux mixture. In raspberry patches cut out all the old canes and thin out the new ones where needed and shorten back these new canes so as to leave them 4 or 5 feet high and tie together at the top or stake and tie to the stake. Cut out all dead wood and overgrown canes in the blackberry patches and shorten back the new canes and tie up to the trellis. See that all trellis frames and stakes are sound and capable of carrying the plants.

In the vineyard, pruning of the vines may be done

as soon as the weather becomes mild and do not hesitate to cut out nearly all the old wood and many of the new canes. Two or three strong canes left to each vine are amply sufficient, and these should be shortened back to three or four eyes. Clean off all old bark and trash and tie up to the stakes or trellis.

In the peach orchard, work may be done to prevent the borers getting into the trees. Clean off the soil from around the trunks to the depth of two or three inches and then paint the trunks, from the ground to the height of 2 feet, with white lead, and then re-place the soil around the trunks.

INCREASING THE YIELD OF ASPARAGUS.

Editor Southern Planter:

A prime condition for profitable returns from any crop is a good physical condition of the soil, and even in a most fertile soil there are but few crops that can withstand positively unfavorable physical conditions. This is even paramount to fertility, because the latter can be remedied by the liberal use of plant food, but without this good physical condition, the natural plant food of the soil cannot be changed into the available condition demanded of it before it can be assimilated by the plant.

Generally speaking, there is hardly a more profitable vegetable grown than asparagus, and yet, by proper feeding of the plant, the possibility of increase, owing not only to the increase in the crop, but also to bringing the crop upon the market earlier, and to an improvement in quality, all of which are factors which make for profit in asparagus culture, is great.

For successful asparagus culture, the first thing is the selection of a proper soil. The plant is most grateful for a warm, sandy soil, or a light loam, and as the crop is to remain in position many years, the soil should be selected with that in mind. Soil carrying much organic matter is a very desirable one for this crop. There is no danger of an over-rich forcing soil for this crop, for the earlier it can be forced and put upon the market, the better the financial returns; and further, a first class product can only grow in a very rich soil.

The manner of planting will depend, to some extent, upon whether the producer desires to obtain white or green asparagus. In the former case, furrows four feet apart should be cleaned out to a depth of from 8 to 12 inches; but if green shoots are the object, then only three or four inches beneath the surface will be a sufficient depth for the roots to be set.

At the outset, the plants should not be too deeply covered, two inches being sufficient, but the furrows should be gradually filled as the growth increases.

The soil must be subjected to clean culture at all times. This crop should receive its manuring just before the shoots start. While stable manure, supplemented by potash and phosphoric acid, is used by many growers, yet many depend entirely upon the commercial fertilizers for maintaining fertility, on account of the fact that the constant use of stable manure fills the land with weeds. The nitrogenous material in this case is obtained from nitrate of soda, the other ingredients being potash and phosphoric acid.

Under proper conditions, the crop will begin commercial production the third year from planting. The highest results from forcing asparagus by the use of either stable manure or nitrate of soda, can only be had when the plant is also fed liberally with potash and phosphoric acid, for otherwise there will be an unbalanced ration for the plant; and since the product will be measured by the weakest ingredient in the soil, if there be only half enough potash present, there will result only one-half the possible crop, and the effect of one-half the nitrogenous material will be lost.

Asparagus responds nicely to a fertilizer having about the following composition:

Nitrogen.....	5 per cent.
Potash.....	9 per cent
Available phosphoric acid..	7 per cent.

or, the following combination may be used at the rate of about 500 pounds per acre:

Nitrate of Soda.....	120 pounds
Acid phosphate.....	200 pounds
Muriate of Potash.....	70 pounds

To assist in keeping up the vegetable matter and humus in the soil, stable manure may take the place of the nitrate of soda every second or third year, but, in such cases, applications of perhaps one-half the above named quantities of potash and phosphoric acid should be continued.

With such treatment, the quality of product and the yield will remain unimpaired from year to year.

In cutting, the stalks should be cut well down to the crown. The shoots are bunched, and the butts removed with a sharp knife, the bunches being held the meanwhile in a bunching machine, and with their tops evenly pressed against a board.

GEORGE WRIGHT.

Live Stock and Dairy.

BREEDS OF HOGS.

Editor Southern Planter:

At the present time there are ten breeds of hogs represented by associations in the United States. These are the Poland-China, the Berkshire, the Duroc-Jersey, the Chester White, the large improved Yorkshire, the Tamworth, the Essex, the Victoria, the Cheshire and the Hampshire. These are given in the order of the number of living animals reported in 1904. The Poland-Chinas are easily the first in number, as considerably over one hundred thousand of these were reported at the time mentioned. Next in number are the Berkshires with thirty thousand. Five of these breeds are of American origin; viz., the Poland-China, the Duroc-Jersey, the Chester White, the Victoria and the Cheshire. In color, three of these breeds are white, one black and one red. Considering the number of animals of the different colors, there are more of the black ones, or Poland-Chinas, than of all the other four breeds. The reds, or Duroc-Jerseys, come second, with probably more than the remaining three breeds. This last named breed has grown exceedingly in popularity within the last few years for reasons that will be discussed later.

A good many classifications have been suggested. Probably three that have more meaning than the others are the ones based upon color, bacon producing qualities, and size. Under the first classification, we have the white breeds, such as the Chester White, the Yorkshires, the Victorias and the Cheshires; the black breeds, such as the Poland-Chinas, the Berkshires and the Essex, and the sandy or red breeds, such as the Duroc-Jerseys and Tamworths. Based on the bacon producing qualities, we have only two distinctive bacon breeds in the United States, the large improved Yorkshires and the Tamworths. The others would, in general, be considered as representatives of the lard type. Under the classification of size, we have the large, the medium and the small breeds. The large breeds are represented by the Chester Whites, the improved Yorkshires and the Tamworths; the medium breeds include the Poland-Chinas, the Berkshires the Duroc-Jerseys, the Victorias and the Cheshires; the small breeds are represented by the Essex. These classifications, as will be seen at once, are purely arbitrary, and some of them at least will have to be changed from time to time owing to the improvement and evolution that is still going on in some of the breeds.

Taking the American breeds as a whole, improvement has eliminated the coarseness of the animal, producing a smooth, compact, early maturing

animal, that has a large amount of fat as compared with the lean meat. This last condition is due to the fact that corn has been used almost exclusively as a food for hogs. The improvement in this country, as well as in England, of the different breeds of hogs has, in general, been effected by the crossing of small rather refined breeds with those that were larger and coarse. In this way, a large amount of the coarseness has been eliminated and the constitution and stamina of the more refined breeds has been improved. This, to be sure, was only the beginning or foundation work in improvement. After this, the improvement has been effected by judicious handling and careful selection, together with rational breeding. This is probably especially true of the Poland-China and the Duroc-Jersey, as will be seen by what follows.

The Poland-China, up to the year 1872, was known by a large variety of names, but at that time the present name was decided upon by the National Swine Breeders Convention. The foundation stock of the Poland-China was several mixed breeds. Warren and Butler Counties in Ohio seemed to be the most important centres from which this breed originated, and it was from the hogs of mixed breedings, as noted above, with probably more or less crosses of several distinctive kinds, that are known to have existed in these counties that this breed originated. In 1835 a Berkshire cross was introduced, which gave them the black color, as well as greater activity and better form. The original hogs were rather rough, ill-formed animals, black and white in color, with large, pendulous ears. Although there have been no crosses since 1845, the improvement in this breed has been very marked. This has been accomplished by careful selection and judicious handling. As they are distinctly a corn belt type, we would expect to find, as we know the case to be, that the meat has a very large proportion of fat. Early maturing is possessed by the breed in a marked degree and is one of its strong points. As with all the American breeds, no one person can be said to be the founder of the breed, but rather communities working together to produce an earlier maturing and more economical hog, effected the improvement. One of the chief faults that has been urged against the Poland-China is that they are not prolific. Their breeding qualities have undoubtedly been injured by forced feeding for successive generations on corn alone. Considering them as a whole, the breeding qualities can only be said to be fair, yet by careful selection of the strain and by judicious handling, there is no question but that good breeders can be had.

The Duroc-Jersey, is a much younger breed than the Poland-China, but from available data, it seems to stand next to them in numbers of the American breeds. As noted before, they have grown wonderfully in popularity in the last few years, probably on account of the fact that they are good breeders, standing very high in this respect among the American breeds of hogs. The origin of this breed has been attributed to the Tamworths, the red Berkshire, and others, but they were most probably produced by crossing of the Duroc and Jersey red. This cross is, to a certain extent, typical of the beginning of improvement of the majority of the breeds of hogs. The Durocs of medium size and bone were crossed with the Jersey reds that are coarse in hair and bone and of large size.

The Duroc-Jerseys are an active and hearty breed and seem to have good grazing and rustling qualities and will stand forcing well. They have not been subjected to the forced corn feeding through the number of generations that the Poland-China has, and consequently have not been impaired in stamina and breeding qualities from that source.

The Chester Whites are probably the oldest of American breeds. They were originated in Chester county, Pennsylvania, from the white hogs found in that section. The breeding and improving of these hogs has been carried on in Ohio, as well as in their native state, and has led to the name and association known as the Ohio Improved Chester. These are rather slower maturing hogs than the other two breeds mentioned, but of a larger size. The Chester Whites were, at one time, rather coarse, rough animals, but the improvement in this line has been marked. They have lost their coarseness, and are a smooth, symmetrical breed. Their breeding qualities are good.

The Cheshires and Victorias were originated in the State of New York. However, the Victoria, as most commonly recognized, seems to have originated in Indiana. These are comparatively local breeds, as they have not been distributed over but a limited area.

We are all more or less familiar with the lard type of hogs, as illustrated by the representatives of the medium breeds. It might be well to call attention just here to some of the characteristics of the bacon type. The head is rather lighter and of greater length, as is also the neck. They have good width of back and great depth of body. They are rather higher from the ground than the other types of hogs, and they also have greater length. In other words, the bacon and hams are much better developed than with the lard type. These animals are prolific breeders, and the progeny show a considerable amount of heartiness and utilizes the food consumed to good advantage in growth. In fact, in some of the experiments that have been conducted with the different

breeds, they have made the most economical gains of those tested in the experiment in question.

This classification as to the bacon-producing qualities of the hogs, is the one that concerns us most at the present time. The demand in this country has been met by the production of such lard types as the Poland-China and the Duroc-Jersey, and the probabilities are that for placing hogs on the open market this type will continue to be the most profitable for sometime to come, but there has been a growing demand for a higher class of bacon and hams. There is no question but that there is a considerable opening for persons who wish to grow and pack their own meat in handling hogs of the bacon class. There are sections of Virginia that are well adapted to growing the clovers and such leguminous grains as cowpeas and soybeans. Foods of this kind, that carry a large amount of protein, will certainly develop a larger amount of lean meat than foods high in carbohydrates and low in protein, like corn. A breed of hogs that are noted for a large percentage of lean meat, grazed on such crops as these, will undoubtedly produce a superior quality of bacon. In grazing experiments with cowpeas and soybeans, the writer has grown from three to five hundred pounds of pork per acre, and at the same time there has been an improvement in the producing quality of the land. We have outlined, at the Virginia Experiment Station, a series of experiments in the grazing of hogs on different crops. It seems that this will be one of the most important phases of work that the Agricultural and Animal Husbandry Departments can undertake. It is hardly possible, in a large part of the State, to feed hogs in competition with the West, but by producing a different and superior quality of meat, we will not come in competition with the corn belt. At the same time a large amount of land can be made profitable and improved by the growing of leguminous crops.

JOHN R. FAIR,
Agriculturist.

Experiment Station, Blacksburg, Va.

THE LARGE YORKSHIRE HOG.

Editor Southern Planter:

It is my good fortune to see agricultural and stock papers from various countries, but until recently I had not seen a copy of your most interesting and valuable Journal. Some kind friend has laid me under a considerable obligation by mailing to me a copy, which I have read with much pleasure and profit. As some light return to you and your subscribers, I will, if you will permit me, trouble you with a few notes on the Large Yorkshire Hog, or, as it is called in Canada, The Improved Yorkshire. I feel that I

am responsible, to a very great extent, for this last name, which, as given some twenty years since, was intended to distinguish the large white pig, as first shipped to Mr. William Davies, of Toronto, by me, from the so-called small Yorkshire in the Northern States, a pig which I believe is at the present time actually a cross of the two kinds of pigs which are called in the old country, the Small White and the Middle White.

The improved, or bacon curer's type of the Large White Yorkshire was the outcome of a strong discussion in the stock papers, initiated some twenty-five or more years since by Messrs. Charles Harris & Co. and Messrs. Thomas Harris & Son, of Colne, Wilts, the most eminent bacon curers in the world. Prior to this time, I had exported large white pigs to Hamburg, Germany, whence, at that time, a considerable quantity of bacon was exported to the British Isles. The change in the fiscal arrangements rendered the supply of raw material in the form of fat pigs, insufficient and of too high a value. Messrs. R. H. Thompson & Co. and Messrs. Koopman, removed their bacon factories to Sweden, then a free trade country, and one from which large numbers of fat pigs had been shipped prior to the imposition of a heavy duty on meat imported into Germany. In turn, Sweden adopted a protectionist policy, and the bacon curers had again to seek fresh quarters, which they found in Denmark where great strides had recently been made in the dairy industry, and, as a matter of course, in the breeding and feeding of pigs. The Danes, with that keen perception which is one of their characteristics, speedily discovered that to make the best of the dairy efforts, it was imperative that they should improve their hogs, and naturally came to England, since the pigs which I had sold to Germany and Sweden had given such great satisfaction to the pig breeders and to the bacon curers. One of the members of the firm of Messrs. Thompson & Co. came down to Holywell Manor and bought a number of large White Yorkshire boars and sows. Within two years of their shipment the bacon imported from Denmark showed a marked improvement in form, substance and quality. The agents in London very speedily impressed on Mr. William Davies the imperative necessity of improving the Canadian pigs since the form of the hams and sides of bacon, as well as the amount of lean and absence of extreme fatness of the Danish sides completely eclipsed the Canadian product.

Mr. Davies simply instructed his London agent to send out a number of Large White boars and sows, and the order was placed with me, since pigs of my breeding had been so successful in Denmark. The

shipment was made in due course, followed by a second to Mr. Davies; then, as was natural, an Irishman, Mr. Ormesby, located in Canada, paid a visit to Holywell and purchased a number of pigs from my herd, and took them over to Canada. He was quite successful with them on his own account, and subsequently on behalf of his chief, Mr. J. Greenshields, of Isaleigh Grange Farm, Danville, P. Q., Canada.

The stock from these importations was spread over a good part of the province of Toronto, where there are still many of their descendants, as well as in the States. A considerable number of Large Whites have also been imported into the States direct from this country, as well as from Canada but these have not all been of the bacon type, many of them have been bred for mere size and are deficient in quality of bone, hair and meat, besides carrying their greatest value per pound. The day of King Lard has hind quarters; in fact their breeders have fallen into the grievous mistake of trying to produce the biggest and heaviest pig regardless of cost or its suitability for supplying the class of meat which will command the highest price, as fresh pork or as mild cured bacon. Pig breeders in the States have long since discarded the idiotic idea that the biggest and heaviest pig is the one most cheaply produced and of the greatest value per pound. The day of Kink Lard has passed, and King Bacon reigns supreme.

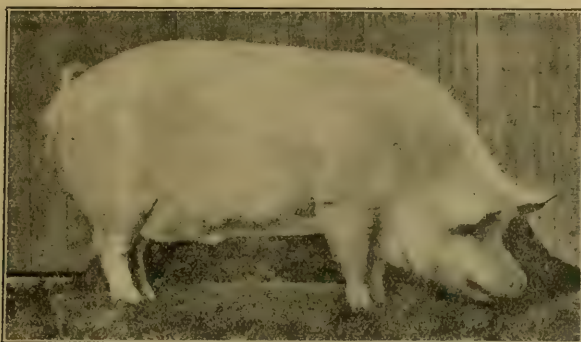
Quite recently several Danes have paid a visit to Holywell Manor, and they declared more than once that after a quarter of a century's experience, no boar pig will beget pigs equal to the produce of the proper type of Large White Yorkshire, for the breeder, feeder, curer and consumer.

I shall have wearied your readers, so will conclude.

Yours, etc.,

SANDERS SPENCER.

The writer of the foregoing article, Mr. Sanders Spencer, of Holywell Manor, St. Ives, England, is one of the oldest and most noted breeders of hogs in England, and his stock has always taken the highest premiums at the great Shows in that country. He may also be truly called the father of the Export trade in fine breeding hog stock from England. He has shipped hogs to almost every country in the world and he never ships any but the best, in fact he never keeps any but those of the purest breeding and finest types. We are gratified that he has favored us with the foregoing notes on Large Yorkshires, and beg to thank him for his complimentary remarks on The Planter.—Ed.



A typical large Yorkshire-Imported Holywell Golden Lad, Property of Bowmont Farms, Salem, Va.

THE BACON HOG.

Editor Southern Planter:

To a large proportion of our hog raisers a "hog is a hog" regardless of the breed or type to which he may belong. Most farmers like a pig that will mature the most quickly into a lump of fat, no matter how unfit for anything except the rendering vat. For many years our markets made no discrimination and often the fattest and heaviest made the highest prices. The craze for immense size and extreme fat has well nigh ruined four or five of the best breeds known to the American people. The habit of feeding for producing fat has so intensified this tendency to fat (oil) forming in our leading breeds, that it has not only simply destroyed the value of the carcass from a bacon standpoint, but it has destroyed the fecundity of the breeds to such an extent that many are barren, and small litters are the rule now among those which continue to produce.

A great change is being wrought. Our packers are now looking for a hog that is fitted to fill the meat tub instead of the lard can. Not a hog that is not capable of being fattened or ripened for the butchers block, or that is composed wholly of lean meat with no fat, but one that is made up of a "streak of lean and a streak of fat," with the fat part composed of good hard meat that will cure into good hard bacon, instead of an oily mass, fit only for rendering into lard, and which, if converted into bacon, becomes rancid and unfit for use, except for soap grease.

Already many progressive farmers and hog raisers throughout the United States and Canada are realizing the importance of meeting this changed demand in our markets, and are introducing into their herds some of the "bacon breeds."

Conspicuous among this class stands the Large Yorkshire. The Large Yorkshire has been bred in

England for a hundred years, with a view of producing lean meat instead of fat, and are known there as "The Bacon Breed." They were introduced into Canada twenty-five years ago and have revolutionized the hog business throughout the Dominion. The packing house of Davies & Co., of Toronto, pays as high as \$1.00 to \$1.50 per 100 pounds more for Large Yorkshires than for other breeds.

Ten years ago they were introduced into the United States, and wherever they have come in competition with other breeds, they have carried off a full share of the honors. The champion fat barrow at the World's Fair at St. Louis was a pure bred Large Yorkshire.

Prof. John A. Craig, Professor of Animal Industry at the Iowa Experiment Station made a test of various breeds lately. Writing in reference to this, he remarks: "We took all of our experiment hogs into Chicago, and I followed them right through the slaughter test there. In our results, I find that the Yorkshire has given the greatest gains on the least feed."

Swift & Co., Union Stock Yards, Chicago, Ill. write: "Referring to the six-months-old Yorkshire bacon hog which took first prize in the dressed carcass contest at the recent International Live Stock Exposition (which hog was shown in the catalogue as 499 1-2, Class III., and No. 14 in the killing contest), beg to say that it gives us great pleasure in writing you to advise that the quality of the meat in this hog was far superior to that of any other hog in this class, among the exhibition hogs which we cut up this week. The lean meat seems to be of exceptionally fine grain and tender, while the fat is very white and unusually firm and hard, in fact, the latter quality is developed to a most unusual degree.

Note that Swift & Co. make mention of the "firm

and hard" quality of the fat meat, and that it was "developed to a most unusual degree."

Large Yorkshires are white, extraordinarily long and very deep, affording the deep sides so much desired for breakfast bacon with the deep and full ham. Their length enables them to carry large litters, the sows frequently farrowing from ten to fourteen pigs at a litter, with ability to raise them all. They are of quiet, pleasant disposition, easily managed, and are excellent mothers. They mature early, weighing from 160 to 250 pounds at six months, and if properly fed can be made to weigh over 400 pounds before they are twelve months old, and 600 to 800 pounds at two years old.

The Large Yorkshire asserts its individual characteristics when crossed even with objectionable types, giving to the progeny its own peculiar features, viz:—a lengthy, deep side, an abundance of lean meat and a thick belly. The breeding qualities of the Large Yorkshire are simply unexcelled, no breed of pigs equals them in ability to breed frequently, regularly and uninterruptedly; they have no superior as nurses. The marked degree in which they transmit these respective qualities to the progeny will without doubt make them the "Hog of the Future."

Roanoke Co., Va.

A. M. BOWMAN.

EXTERMINATE THE CATTLE TICK.

Editor Southern Planter:

At the recent meeting of the Southern Cotton States Commissioners of Agriculture held in Richmond, the question of the extermination of the cattle tick was discussed in all its phases. A number of gentlemen have been at work on this problem for years past and have now demonstrated fully that it is possible to control and eradicate this pest which has held in check the stock industries of the South for over a century. What this means to the farmer south of the quarantine line can hardly be appreciated unless one has made an expert study of the situation, but it is safe to say that no farmer who has ever been north of the quarantine line in Virginia would ever want to be put south of it again.

According to the statements of Dr. Tait Butler, of North Carolina, who has made a very thorough and careful study of this problem, the cattle tick entails a loss of \$2,500.00 a year to every county south of the quarantine line that sells as much as \$15,000.00 worth of cattle, and many of them sell more. There are something like 20 counties in Virginia south of

this line, so that they are paying an annual tax to the cattle tick of at least \$50,000.00 a year. In North Carolina, twelve counties have been practically freed from the tick in the last four years at a cost of about \$15,000.00. and it is now confidently believed that twenty additional counties can be taken out of the quarantine in the next three or four years, at the same proportional cost.

The evidence in hand, therefore, demonstrates fully that Virginia should be rid of this pest, and that it can be rid of it at a comparatively small cost to the immense benefit of all the region now south of the quarantine line. These facts are surely worthy of consideration, for should the North Carolina people succeed in freeing their State of the cattle tick, the line would pass around and behind Virginia and the chances are that we would be regarded as an obstacle to progress, and much of the territory now outside of the area might again be thrown into quarantine, which would indeed be a calamity to our live stock interests. It behoves us, as Virginia farmers and land owners, to wake up to the present situation and rid ourselves of this nuisance. It was further shown that there are a number of counties below the quarantine line where the infection is but slight, and through the appointment of local inspectors and the co-operation of the people, with a small appropriation from the State, the pest could be stamped out in the course of a year or two, and the advantages to be gained thereby are so manifest that it does not seem possible that the farmers in these tick infested counties would be willing to pay a tax of \$2,500.00 a year on a moderate estimate, and remain south of the line when they can be freed from the tick if they get together and pursue a systematic course looking towards its extermination.

At the recent convention, a suggestion was made relative to the position of the Virginia Experiment Station on this question. Permit me to say that the Virginia Station is thoroughly in sympathy with the movement and doing all in its power to assist the farmers of Virginia to rid themselves of this pest. At the same time, it should be distinctly understood that the Station has not the power nor the funds available for this work. The State Department of Agriculture of North Carolina has seen fit to deal liberally with this matter and has appropriated funds for this purpose, and the facts available show that it has been a highly profitable investment. If Virginia could only say to the world that she is absolutely free of the tick, our live stock industries would increase apace, because we could ship our choicest and

best animals into the regions which are now infested with impunity, and whole areas of land that are cultivated in cotton, tobacco and other exhausting crops, would be brought under the influence of stock farming, and grass would take the place of the washed hill sides, and a great industry could be developed in a section of the State where, owing to the presence of the tick, little progress has been made for over a century. This is not over-drawing the picture as it stands to-day, nor painting the future too vividly, but is a common-sense view of the situation, and one that the writer believes should be earnestly called to the attention of the people that the question may be sufficiently agitated to insure legislative action being taken in the immediate future to banish this dangerous pest once and for all, from the borders of this State.

The recent convention passed resolutions petitioning Congress for an appropriation of half a million of dollars with which to carry on the work, looking to the extermination of the pest. This money, if appropriated will be placed at the disposal of the Bureau of Animal Industry, and will be spent in connection with the Stations located in the Southern States where some funds have been appropriated by the State for the work of the tick extermination. Shall this golden opportunity be lost, or, are we sufficiently aroused to the importance of this question to take hold of it and rid the State of a pest that is a permanent barrier to progress, the cause of a direct financial loss annually of at least \$50,000.00, and an obstacle to free trade within the borders of the State?

ANDREW M. SOULE,
Dean and Director.

Virginia Experiment Station.

At the convention, Dr. Stubbs and other gentlemen urged the passage of a resolution calling upon the Commissioners of Agriculture to take steps to urge the passage of a "no fence" law in each of the Southern States, but several of the Commissioners objected to this duty being cast on them, as they had not backbone enough to fight for the law although all knew and admitted its efficacy. The Commissioner of Virginia was one of these. A striking example of the evil results of popular election of executive officers.—Ed.

BREEDS OF BEEF CATTLE IN THE SOUTH.

Editor Southern Planter:

The four principal breeds of beef cattle found in the South are the Shorthorn, Hereford, Aberdeen Angus, and Galloway. Of these breeds, the Short-

horns have the widest dissemination,, the Herefords come second, and the Aberdeen Angus and Galloways in the order named. The Red Polls, one of the so-called dual or general purpose breeds, are also well and favorably known and have a wide distribution. Devon cattle are favorites in some sections, but their distribution is not at all general, though they are probably a breed not appreciated as much as they ought to be in sections where pastures yield only moderately well and are therefore best adapted to a comparatively small and rustling type of animal.

It is certainly encouraging to know that all the leading beef breeds can be maintained with satisfaction and success in Virginia, as it allows the widest possible choice in the introduction and utilization of pure-bred sires, the need of which, in spite of the progress made in the last quarter of a century, is still everywhere apparent. Strange as it may seem, comparatively little is known about the origin and history of the various pure breeds and still less about their special qualities. This is an exceedingly difficult, and in some respects a dangerous subject to discuss, for the promoters of every breed regard their animals as living models of perfection and sometimes resent even a kindly criticism. It is not the object of this paper to further the interests of any breeds, but rather to place before the readers of this paper some of the facts with reference to these several types of cattle, and to discuss their merits without bias in so far as it is possible to do so. This can probably best be done by taking up the several breeds in the order in which they have been named.

The Shorthorns, or Durhams, as they are often called, like all our breeds of beef cattle, originated in Great Britain. The foundation stock consisted of a general admixture of the native cattle of Great Britain with those brought in by the Saxons, Danes, and Normans, and it was not surprising that a breed of marked excellence should be developed in the rich grazing lands along the valley of the river Tees in the northern part of Great Britain. For two centuries and more this section of the country had been noted for the excellence of the animals produced therein, their fine milking qualities and their remarkable fattening propensities. The systematic development of this breed was undertaken by Colling Brothers, of Kenton, about 1780, and was followed up by Thomas Bates, who developed the celebrated Princess, Duchess and Oxford families. Booth was also a famous breeder of Shorthorns, and, together with Amos Cruickshanks, of Scotland, developed certain well known strains of the breed which are still regarded with favor.

It is little wonder that Shorthorns have been favorites in Virginia and in many sections of the South, for they were among the first pure-bred cattle of the

beef breeds imported into this State. From their earliest introduction, they seem to have taken kindly to climatic and soil conditions, and so their distribu-



Regnald. A Shorthorn Bull. Property of Maj. Jno. T. Cowan of Virginia.

tion was very rapid, and naturally they have furnished the foundation for the general improvement of our American live stock, and Southern grades are more commonly found to-day than those of any other breed. There are at least a half-million pure-bred Shorthorns in the United States and Canada, and this, of itself speaks more eloquently than words of the excellent qualities of this well-known breed. Shorthorns are especially to be commended for their remarkable adaptability to a great variety of soil and climatic conditions. They are a hardy, vigorous breed, doing especially well on arable lands, but giving a good account of themselves on undulating pastures, and even under conditions where rustling is a necessity. In weight and size, they are probably a little larger than any of the other breeds, and in maturing qualities, they are equal, if not superior to any. They finish nicely and give a smooth, even carcass, which is highly appreciated by both buyers and packers. As grazers, they are probably not quite equal to the Herefords, especially when on forced feed, as their heavy frames make them somewhat sluggish, but, under ordinary conditions, as found in the South, they graze and finish remarkably well on pastures alone, constituting by far the greater part of the animals which are finished on grass in Virginia as export steers. The meat produced by this breed is of a superior quality and the proportion of waste is comparatively small, but it is possible that the fat and the lean are not quite so well inter-mixed as in the case of some other breeds.

The Shorthorn was favorably known for milk pro-

duction at one time, but in the mad struggle to develop animals of superior quality for beef making, the milk-giving function has been seriously impaired, except in a few remote cases. Some efforts are now being made to overcome this difficulty, and if the work is pursued systematically, success will surely be achieved. For crossing and grading on the native stocks no breed excels the Shorthorn, and it is for this reason that it has become such a general favorite. This breed, owing to its size and weight, will give its best results on the rich pastures of the Appalachian region, and probably will not succeed as well in the low countries as some of the more active breeds like the Herefords, and lighter, general purpose type of animal like the Red Poll and Devon. The Shorthorns are a remarkable compact breed with a rectangular conformation and a deep, symmetrical outline of body, with a graceful carriage. The standard colors are red, white and roan, though an admixture of them is equally permissible.



A Shorthorn Matron. Property of Virginia Experiment Station.

Hereford cattle, the closest rivals of the Shorthorns for public favor, are an old breed, their ancestry dating back more than 300 years. These cattle have long been known for their excellent grazing and beef-making properties, and their early improvement was largely due to the efforts of Benjamin Tompkins. They early made an enviable record as prize winners at the famous Smithfield Fat Stock Show held in London. They were early imported into the United States and Canada and now have a very wide distribution in this country as well as in a number of foreign countries. There are certainly more than 100,000 pure-bred Herefords in the United States at the present time. In popularity they would come second only to the Shorthorns, though in some sections, particularly on the ranges of the South-

west, they have come to be recognized as the leading breed, during recent years. They are favorites because they adapt themselves so readily to changes of soil and climate, though in this respect they are not superior to the Shorthorns, but for grazing purposes on scant pastures, they are unexcelled.

They are practically equal, in size and weight, to the Shorthorns, and in maturing and fattening qualities, are fully equal. The quality of meat is very fine and the amount of bone relatively small. These animals dress out well and the meat is beautifully marbled, which is an important consideration to the packer and consumer as well. In milking qualities, they are, if anything, not equal to the Shorthorns, and certainly not superior. They have done remarkably well when crossed on the native stocks of the Southwestern States, and have shown themselves to be remarkably prepotent. They could thus be used to advantage for the improvement of the live stock throughout the Gulf States, provided they are properly immuned. In this section of the country, they could probably be used more advantageously than the Shorthorns, owing to their better rustling qualities. On the other hand, they do not seem to be quite so well adapted to the uplands of the Appalachian region where the Shorthorn is still a prime favorite with breeders and feeders alike.



A Hereford Matron, Property of Virginia Experiment Station.

The Herefords are a remarkably picturesque breed, owing to their striking color markings. Their face, throat, chest, legs, lower part of the body, crest and tip of tail, are a beautiful white, and all the other parts are red. The horns of the breed have a much wider sweep than is the case with the Shorthorns, but they are not large enough to give the appearance of coarseness. In conformation, they are rectangular and compact, with smoothness of outline, but

not quite so blocky as a well developed type of the Shorthorn. In recent years, the length of the leg has been shortened, and they often now stand somewhat closer to the ground than the Shorthorns. This breed can be used to advantage over large areas of the South for the permanent improvement of the live stock, and the introduction and utilization of pure-bred Hereford sires would effect marvellous changes in the quality of animals sent out from a district in a short time, and the only regret to be expressed on this occasion is that the excellent qualities of pure-bred sires of the beef breed is not more generally appreciated.



An Aberdeen Angus Matron, Uroperty of Virginia Experiment Station.

The Aberdeen Angus cattle originated in Scotland, and, though an old breed, their improvement has come during more recent years. This breed of cattle is favorably known in many sections of the country and they are prime favorites with those who have had an opportunity to test their qualities under practical conditions. There are probably not more than half as many Aberdeen Angus in the United States as there are Herefords, and probably not more than one-tenth as many as Shorthorns. This breed is well adapted for use in temperate climates, though not so well suited for range conditions as either the Herefords or Shorthorns, but they do well on rich, arable pastures. They are about the same size as the Shorthorns and Herefords, and, in maturing qualities, and at least equal to these breeds, and in some respects are superior. They fatten in the stall remarkably well, putting on flesh evenly, and owing to their uniform conformation and jet black color, they present a peculiarly attractive appearance in the show ring and the feed lot. They are justly celebrated for the fine blending of the fat and lean and for the fine quality of meat which they yield. Their milking qualities, like those of other beef breeds, are not

at all remarkable, and while they have given satisfaction when used for crossing and grading, they are not regarded by many with as much favor as either the Shorthorn or Hereford sire. They are a very prepotent breed, however, a large percentage of the progeny being black or gray in color, and they are excellent breeders.

In general appearance, they are low-set and sturdy, black in color and hornless. The body is much more cylindrical than that of the Shorthorn, and they present a very smooth and even conformation. This breed has been introduced in several sections of the South and has proven a favorite wherever it has become well known. There is room for its dissemination in several sections, and, owing to its many excellent qualities, it is to be hoped that it will make rapid progress and be favored in the next few years.



The "Three Graces." A Hereford, An Angus and a Shorthorn.

The Galloway is the least known of any of the principal beef breeds found in the South. They originated in Scotland and are celebrated for their vigorous constitutions incident to their being raised in the cold, forbidding climate prevailing in sections of Scotland to which they are native.

While this is a very old breed, its systematic improvement was commenced much later than that of the other breeds mentioned. They have thus not been tested under a great variety of conditions to which the Herefords and Shorthorns have been subjected. They are growing rapidly in popularity and have made an excellent record for themselves at the International Live Stock Exposition in Chicago. They are undoubtedly the hardest of the British breeds, with the possible exception of the West Highland cattle, and they do well in the ranges, both of the Western States and the Canadian Northwest. In spite of their being reared in such a cold climate,

they seem to have given a good account of themselves wherever introduced in the South, but they have probably not had a wide enough distribution yet to fully determine their relative merits as a beef breed for this section of the country as compared with the older, more generally known and well-established breeds.

The Galloways are not quite so large as the Shorthorns, and possibly do not mature quite as quickly. Their grazing qualities are of a very high order, and they are capable of standing rough treatment and do well on rugged pastures. Owing to their thick coats, they might be better adapted to the uplands of the Appalachian region than one might at first think, because the cold of our winters is often not so trying as that resulting from dampness incident to the frequent rains of the winter season. In some sections of the far South, where these cattle have been introduced, they are favorites, because of the fact that their thick coats protect them to some extent from the flies which torment the thinner skinned and shorter haired animals. They are celebrated for the fine quality of the meat which they yield, but their milking qualities are not good. Wherever used for crossing and grading on native stock, they have given great satisfaction, owing to their remarkable prepotency. They are also good breeders and their hides are particularly valuable for the manufacture of robes. The hide would probably lose some of its fine qualities in this respect raised in the South, owing to the warm nature of our climate. Compared with the Shorthorns, this breed is undoubtedly harder and grazes to better advantage and yields a finer quality of meat, but they are not so widely known, and it is doubtful if their distribution will ever become as general as that of the Shorthorn.

The Red Polls, which are known as one of the general or dual-purpose types of cattle, and well adapted for both meat and milk production, originated in Norfolk and Suffolk counties in England. They are a somewhat cosmopolitan breed, and their improvement has been brought about through a rigorous selection and breeding to a definite standard. There is evidence for the statement that the Red Polls were introduced into Virginia at least two centuries ago, but they made comparatively little progress until within recent years. While they are found now in nearly all of the States, there are probably not more than 20,000 or 25,000 pure-breds in the country, but this is not surprising, as the breed is a comparatively young one and they have made rapid progress in popular favor since their introduction. This breed is well adapted for maintenance on pastures of moderate fertility and on undulating soil, and they seem to do well in our Southern climate.

In size, they are smaller than the Shorthorns,



Champion Red Poll at English Royal Show.

though their milking qualities are vastly superior to the majority of the cows of that breed. Good Red Poll cows will often yield from 5,000 to 8,000 pounds of milk a year and they drop calves that make excellent beef animals, maturing early and fattening well. Red Poll sires cross well on the common stocks and improve them both in form and utility. This is a very important matter because the sires, being of moderate size and not so hard to maintain in good condition as some of the heavier breeds, and in sections where grass is not abundant and substitute crops have to be used, they can often be maintained to good advantage. The well known milking qualities of this breed are worthy of consideration because dairy products command a high price in the South, and an animal that is useful for both dairy and beef production can often be utilized to great advantage. One of the weak points of this breed is a lack of uniformity that is, the difficulty of breeding an animal of a uniform type where two objects are in view; namely, meat and milk. If Red Poll breeders would establish a standard for their cattle, this difficulty would probably disappear.

Devon cattle, another one of the dual-purpose breeds, are found in sections of the South, though they are not at all widely known. They originated in Britain and have been long and favorably known in that country for both meat and milk production. They were imported into the United States nearly a century ago, but did not seem to make much progress for many years. An interest has been revived in

the Devon in some sections, particularly where an animal is desired of a type that will yield an abundant supply of milk and produce calves that make good veals or steers that fatten or mature to much better advantage than those obtained from the high-grade Jersey. The principal objection to the use of the Devon in sections where rich pastures are abundant, is due to their size, but in places where grass is hard to obtain and substitute crops must be utilized, or where the country is hilly and broken and excellent rustling qualities are at a premium, the Devon will become a favorite once its good qualities are duly appreciated. Devons also do well in warm latitudes.

In size, they are about equal to the Red Polls, though somewhat smaller than the principal beef breeds. They are excellent milkers, both as to quality and quantity, and they graze under the conditions already mentioned to good advantage. They feed well in the stall and put on flesh evenly and the quality of the meat is fine. It is a very prepotent breed and the sires can be used to advantage for the improvement of our common stocks. This breed of cattle has a place in certain sections of the South which no other breed can fill, and it is too bad that its good qualities for certain conditions are not more generally known and appreciated.

The foregoing is a very brief summary of some of the leading characteristics and desirable qualities of the principal beef breeds. While all of these breeds have their peculiar characteristics and their

strong and weak points, it is interesting to know that they all have a place and can be used to advantage under given conditions for the improvement of the cattle on our Southern farms and ranges. Much annoyance and loss have often been suffered by breeders through the purchase and utilization of animals not well adapted to the environment to which they were introduced, and it will often pay those intending to purchase sires to go slow and ascertain the qualities and characteristics of a particular breed before attempting to introduce it into a new section of the country. The standard breeds should be given first consideration and those not so widely distributed, or so well known, introduced with caution.

The so-called general purpose cow has a place on many Southern farms where neither dairying nor beef production can be made a specialty, and if such animals were introduced and properly cared for, the revenue of many farmers could undoubtedly be increased, and a welcome addition made to the supplies of Southern dairy produce, and a decided increase obtained in both the quality and quantity of beef now produced.

While it is too early to forecast the future, the time will undoubtedly come when beef breeds, having special qualities and adapted to our peculiar soil and climatic conditions, will be developed in this country. The best evidence of this is found in the numerous breeds of cattle, sheep and swine which have been developed in Great Britain, a country not as large as the State of Texas, which constitutes but one section of the great new South. The question of introducing a breed, therefore, while a matter of importance, is not of so much concern to our farmers as an intelligent selection and management of animals introduced, so as to adapt them to the peculiar conditions under which they are to be maintained.

ANDREW M. SOULE,
Dean and Director.

Virginia Experiment Station.

THE BERKSHIRE HOG.

Having now been breeding and keeping Berkshires for many years, and having carefully watched and compared them with other breeds of hogs kept in the South, I am strongly of the opinion that no other hog meets the needs of Southern farmers so well as the Berkshire.

To make hog breeding and feeding a success in the South, and to compete with the Western man in the markets, we must have a hog that can stand our hot weather and can make growth and fat on grazing crops like cowpeas, soy beans, crimson and red clover. With corn selling as it usually does in the South at 50 cents and over per bushel, we cannot afford to

shovel it out to the hogs like the Western man can and does where it is often not capable of being sold at more than 15 or 20 cents per bushel. We must have a hog that can hustle around in the field and eat and get growth and fat on crops that only cost us about a dollar an acre for the seed to raise them, and from 50 cents to \$1.00 an acre for the labor involved in seeding and growing the crop. We can raise cowpeas and soy beans at this cost, and on these crops can make 500 pounds of pork to the acre. These crops, when thus utilized, are not only profitable, in themselves, but are essential in the South to raise and maintain the fertility of our lands. When these can also be supplemented by other forage crops for winter feeding, like crimson clover and Artichokes, and for summer and fall feeding with sorghum, peanuts, sweet potatoes and chufas, we can, with the proper hog, make meat cheaper than any other section of this country. The Berkshire hog meets our needs exactly. His black skin enables him to withstand our hot summer sun without being scorched or burnt, and his active rustling habits makes him thoroughly contented when turned into a field of any of these crops, and, as a consequence of this contented frame of mind, he puts on growth and fat at the very lowest cost. He is a healthy precocious hog, grows rapidly and can be made ready for the market at any time from six months old. Pigs from six to nine months old will easily make 175 to 200 pounds in weight, and hogs of this weight are what our Southern markets call for and pay the best price for. The Berkshire sow is a prolific producer of pigs and almost invariably a good mother with a large supply of milk, and this on a grazing diet of cowpeas and other forage crops. The young pigs are active rustlers from birth and are soon able to look after their own welfare, and suffer little from the diseases to which many other pigs are liable. This is largely to be attributed to the fact that the Berkshires have never been an exclusively corn-fed breed, but have largely been raised in the South, from their first introduction, on crops rich in protein like the peans, beans and clovers. These crops make muscle and solid flesh, and not oily fat like corn and the other carbohydrate crops. This system of feeding has made the Berkshire a hog of wonderful good stamina and health, and this largely accounts for the popularity of the breed in the South, where it undoubtedly takes the lead in numbers, either purely bred or of high grade breeding.

Experience has shown that the Berkshire Boar makes the very best cross upon the common hogs of the South, and largely impresses upon the progeny his good qualities. A second or third cross will result in pigs having almost all the good qualities of the pure-bred Berkshire with wonderful stamina and ability to hustle for a living, and able to make

profitable use of any food they can find in the field or forest.

Taken all in all, I believe the Berkshire the very best hog for the Southern farmer as a living animal, and as cured meat, no finer bacon or hams ever come on any man's table.

T. O. SANDY.

Nottoway Co., Va.

A PLEA FOR THE GOLDEN HOOF IN DIXIE LAND.



"Old Thunderbolt." One of Edgewood's famous Dorset rams.

Editor Southern Planters

We sing, "Dixie Land is the land o' cotton", and when we sing it we have told of that which is dearest to the Southern farmer's heart. The South is the greatest cotton center in the world. Her climate, her soil and her laborers know well how to clothe her fields in the snowy raiment of this staple crop. Southern farmers love to grow cotton when it pays, because it is the best and most attractive way of making a living. They love to grow it when it doesn't pay because they know how to do this best. The plantation "nigger" can do nothing as he can "chop cotton". This comes natural to him. Thus the Southern farmer has made a specialty of cotton, and specialization is not the law of agriculture. Diversity, Diversity, saith the preacher, all is diversity in Agriculture. It not my purpose to show how diversity of crops in the South must be followed: I think this doctrine is well established in the minds of the up-to-date farmers. I want to enter a plea for livestock culture and, especially, for the upbuilding of the sheep industry. I wish we might change that first line of our martial

hymn and sing, Dixie Land grows wool and cotton. The South, except Virginia, Kentucky and Tennessee, has turned its back upon the golden hoofs, has allowed her flock to dwindle to almost nothing, has neglected such flocks as she does possess, and has no plan or policy for the future.

We will discuss the question under certain heads, for this paper will be much like a sermon to the readers of the SOUTHERN PLANTER.

1, Why do we want sheep in the South? No form of livestock can turn feed into money so quickly. You own a bunch of ewes that cost you \$4 per head. These ewes are bred for early lambs. They lamb down in January. On the first of May you have a bunch of lambs ready for market at cost of not over fifty cents per head in grain and fifty cents in pasture and hay. In three months your lambs are on the market at 6 cents per pound. At seventy-five pounds, you get \$4.50 per head for your lambs, which is about \$3.50 clear money per head, for the fleeces on your ewes, if they are good ones and the proceeds from the 10% surplus of lambs will come close to paying for the wintering of the ewes, if you are not too particular in charging up pasture which would otherwise go to waste in the fields. Your \$4 ewes have yielded over 75% on the original investment and under proper care you have not lost over 5% of your ewe flock and are ready for another year's business.

Now this is no farmer's dream. I can refer you to several men in Virginia who have done better than this during the past year. In what other way can you secure such profits? Arise, "speak now, or for evermore hold your peace".



1st Prize Shropshire at Royal Show, England.

You can't do it with corn, or wheat or cotton. You ask if it can be done all through the South. No, not now, for reasons that will appear later, but it is worth working for. If farmers in Virginia can do it why not farmers in Georgia? If farmers in Kentucky can do it, why not farmers in Alabama? There may be reasons now, but let me say that if there are rea-

sons in the future the whole fault may be yours, brother farmer. If I have given you a true story, is not the foot of the sheep a golden hoof? Again we want sheep in the South because our lands are runnin' down and no animals on earth can reclaim lands like sheep. Sheep choose the high, dry places to lie on at night. There they leave their droppings, that pound for pound is worth more than any plant food on earth. These very high places are the poorest, worst washed, barest places. Don't you see then what a flock of sheep will do? They will during the day gather the grass in the valleys and hollows, where it grows luxuriantly from the plant food washed off the hills and every night they carry it back to the hills whence it came. I was once walking over a farm with a man who remarked that he never saw such a sod on hills as he saw on this farm. Kicking over a pile of sheep droppings that lay in a clump of dark green blue grass, I said, "Here is the secret." Nothing equal to sheep for reclaiming land. I have heard cattle men assert that sheep destroy sod. I wouldn't take the time to refute this. I simply refer such doubting Thomases to England, where I have seen twenty

I saw an interesting thing a few years ago. I had just walked across a field that was pastured with sheep. I noticed that weeds were almost rare in that



A Southdown. Property of the King of England.



A tribe of coarse wooled sheep from India. They seem to thrive in Georgia.

field. I came to a wire fence that separated this field from a cattle pasture. Just over that fence and right up to the wire weeds had run riot. It was a sight. The cattle had mowed off patches in the early season and confined their grazing to these mowed patches. Two-thirds of the field had grown up in weeds and the grass in these untouched patches was choked out and absolutely useless. The man thought he was grazing one steer on two acres. As a matter of fact, he was grazing one steer on less than an acre. Two-thirds of his pasture had gone to waste. This explains the fact that large boundaries are to-day fattening hardly half the number of cattle that they fattened years ago. There are some exceptions to this, for on some farms the weeds have not yet gotten complete possession, but they will do to watch. Sheep will help you in the fight. Is not the foot of the sheep the foot of gold to the farmer?

2. The great advantages that the South possesses for sheep husbandry.—In the winter-bound North expensive sheep barns must be constructed to protect the sheep from the rigors of the cold and wind. The cold rains make it necessary to provide good shelter and the outlay is considerable. During the winter months the sheep can find nothing to eat in the fields for two or three months. No green food can endure the cold. Wheat fields and rye fields are useless from December to March. Bluegrass is dry and worthless and the filling of the sheep's stomachs with this unwholesome stuff is simply cheating the poor animals out of a living. In the balmy South there is not much winter for sheep. In fact, the sheep must feel that their overcoats are not needed. Just here it may be well to consider whether the heaviest fleeced breeds are best suited to our conditions. Some form of green food can be kept in the fields nearly all winter.

sheep to the acre grazing over a sod that would put our best Kentucky sods to shame. Again we want sheep to clean up these weeds that are crowding everything else out. Sheep were not made to live on weeds, but with every meal they will take a goodly supply as a sort of desert. I watched a lamb one afternoon for one hour and in that hour I listed sixteen different kinds of weeds that I saw her bite off. The heads of ox-eye, ragweed and carrot that she ate in this hour could certainly have run up close to one hundred.

Some grasses never lose their nutriment. In Georgia at an elevation of 1000 feet, blue grass and orchard grass are often green in every month of the year. Where could winter lambs be raised with less trouble and greater profits? Does it not seem a little peculiar that this industry is unknown in the South. I never knew but one man in the far South who tried it and he did not know anything about it and failed at it. This was no proof that it could not be done. Already the farmers in Virginia are thinking along these lines and not a few made big money last year on winter lambs, but even in Virginia it has not prospered. Men have not taken hold of it right. There are wonderful profits in it. In the South it takes small equipment for this branch of sheep husbandry.

A great variety of foods can be grown in the South for sheep and sheep love variety in their food. Then there are so many acres that are lying almost useless that can not be used for any other purpose. Why could these not be turned into sheep ranges. Thousands of sheep graze on worse pastures in the stormy, uninviting Northwest.

3, The difficulties that face the Southern farmer in sheep husbandry.—Long since I have given up the idea that difficulties are without value in the development of great things whether it be in character, in achievement, or in commercial progress. I am rather doubtful whether or not any one has ever achieved the highest success who has not met and overcome difficulties. No one can be a perfect master of any situation without a thorough study of all conditions and mastery of all the details. It takes difficulties to accomplish this.

Now, there are some very serious difficulties that face any man who would start in the sheep business on a large scale in the South.

I will not hesitate to name those that occur to me. It is well to look the matter squarely in the face before you start.

Lack of pasture is the first thing that is a stumbling block in the way of the sheep farmer. This is very general over the States to the south of Tennessee. You may ask if there are grasses of value for pastures in the Southern States. Yes; there are a variety of grasses and useful grasses, but most of these grasses have short seasons, some in spring, some in summer, some in fall, and no form of rotation has been devised that will maintain a permanent pasture throughout the year. Bermuda is a fine grass for summer, but a pasture of Bermuda must be broken up and worked every two or three years, as it gets hide bound and stops growing. Meadow oat grass grows in clumps, but can be made to furnish many a mouthful of feed in old pasture fields. Texas blue grass is a rather coarse grass and delights in moist places, but will come on very early in the spring

on good land and has its place. Lespedeza and white clover are found growing on very thin lands over most of the Southern States. Crabgrass is not a bit to be sniffed at during the close of the summer, but passes away with the first frost. Many wild plants of the pea family, such as mellilotus, beggar weed, and common vetch, furnish good range in many of the open uplands in the South. In Florida, the beggar weed furnishes hay of no mean quality. Johnson grass, which is to be kept out of arable lands, will grow up in wonderful luxuriance and furnish a rather mediocre, but abundant hay, as well as some grazing. Even broom sedge is not bad pasture during the early spring months. (I would advise no one to propagate either of the last. If they force themselves upon you, make the most of them and strive to keep them within their bounds.) The clover may be grown with some success very generally, but it often requires careful preparation of the land and considerable enrichment with an application of lime. Alfalfa will grow in many sections after you have gotten on to its ways, which may often seem "dark and peculiar" to the novice. Orchard grass and Red Top (herd's grass) have been used with some success. The former promises to be a great boon to Southern farmers. Sow it every chance you get and continue to sow it, as it dies out. It lasts practically all the year and will furnish green food for sheep at all times of the winter. I understand that it will not grow at all in certain sections, where it is very sandy, but I have seen it widely scattered through every State of the South.

In the coastal belt, wire grass is the grass, and where wire grass finds hospitable conditions, the other grasses are rarely seen. There are plenty of grasses, but very little good pastureage which, I am sure, is largely due to long neglect. I am sure that the presence of sheep would improve these conditions very much. But meantime, what will you do to keep sheep going? I think that the sheep will find enough to eat if you give them sufficient range, but you can supplement this with fields of rape and rye and barley.

Some day, I expect to see better pastures in the South. It takes time and study to make good pastures. There are some farms in the far South with good pastures, but you will find that the farmers have spent much time, money and thought on the problem, before they attained success.

Again, the multitude of worthless curs that infest the South will ever be a menace to sheep husbandry, until wise legislatures rise up against such a destroyer of the people's property. This is sure to come, for there is no reason why a man should keep a dog that is so precious in his eyes without paying a respectable tax for it. I never pay taxes on any property so cheerfully as upon my dog. Until then,

it may become necessary to keep a boy with the sheep during the day time and bring them into a corral at night. It may be possible, in small flocks, to save loss by introducing Dorset blood. Many Dorset rams will fight dogs and the majority of ewes seem to show no fear of any ordinary dog. I would not consider them safe from a practised sheep killer. The last named type of dogs needs just one kind of medicine that has never failed to cure—a small mass of lead from a 38 Winchester.

Another serious difficulty is the lack of shepherds who know how to handle sheep. It is hard to find a man in the Southern States who knows how to feed sheep or care for them. This is just plain ignorance. The reading of such papers as *The Southern Planter* and the *American Sheep Breeder* will help to cure this trouble. It is serious now, and most of the losses will probably come from this source. Only men who care to study this subject and know how to profit in the school of experience should be retained.

Last, and most serious of all, are the numerous parasitic diseases that sheep are subject to in the South. Here is a real problem, and sheep farmers may well halt before it. When we know more about the life history of these parasites and when we have determined the character of the different species that infest Southern sheep, we will be able to solve this problem. I have found in a lamb four months old six different parasites, one of which I have never seen described in any of the books. The stomach worm (*Strongylus contortus*), the nodular worm, causing knotty guts, (*Oesophagostoma Columbianum*) and the lung worm (*Strongylus filaris*) were very numerous in this animal. I am of the opinion that the nodular disease is the most serious, and I have evidence for thinking that this parasite is already disseminated in the South. It is so abundant in Georgia that it causes the death of lambs at six months, while in Virginia, sheep rarely become seriously affected under five years of age; that is, they don't weaken and die from the attack of the parasite. The Louisiana Experiment Station has undertaken extensive experiments with lambs that are kept from pasture and soiled in clean lots, where the water is supplied in clean troughs. These experiments only convince us of the seriousness of the fight we have on hand. They point to no practical remedy and only show that the infection may be increased by grazing over pastures that have received the droppings of the affected animals. This only shows what a problem we have, but there are ways of holding these in check, which I have not the time for now, and then we are not the people to be stopped by any such difficulty. Even this worst enemy of sheep culture must fall before the intelligence of the American shepherd, and we people of the South should unselfishly, fearlessly and cheerfully assume our part in the fight.

4. How we must start our flocks and the kind of sheep we must have.—In starting the sheep business the very first question is, "Where will I get my sheep?" The flocks of the South have been so neglected that they are so weakened by disease that it is almost hopeless to start a flock with just any sheep that can be picked up. In the beginning, it may be best to secure the sheep as near home as possible, as, unquestionably, the moving of older sheep into the South from the Central States involves acclimatization that may cause serious losses. In securing these sheep, you must look out for certain things. Seek strong sheep that are healthy and well covered with wool. If a sheep's skin is pink, and the fleece is smooth and strong, it is generally in good health. Avoid pale-skinned sheep with loose fleeces and small spindling bones. Keep your eyes open for constitution. It is no simple thing to find a flock of healthy ewes in the South. Nearly every flock you find in the extreme South is emaciated, pale-skinned, losing wool, and lacking vigor. If you secure a healthy flock, you can soon breed it up by the use of the best rams, always using only pure-bred rams. In choosing your rams you must have an eye to the market in your section. If you are growing lambs for an early market, quick maturing, growthy lambs are what you want, as you want to make the most weight in the shortest time and have your lambs ripe. Hampshires and Dorsets are good for this. Shropshires and Southdowns are both fine for making mutton lambs, and I should say that those who market their lambs at their leisure during the summer, could make no mistake in using these. There are many other valuable breeds that will suit special conditions. For instance, for a first cross to get constitution and fleece, the larger types of Delaines and Rambouillet are very valuable. Such a cross would make good foundation ewes for Southern flocks and will breed well with any of the rams mentioned.

It is very important to select a breed of sheep that is suited to your conditions. You remember that the editor of *The Southern Planter* has always insisted upon this. He is an Englishman and knows how his countrymen have achieved such remarkable success in sheep husbandry. Over there you will find different breeds of sheep in different counties, and, strange to say, the slight change of conditions observed in travelling fifty or sixty miles across the country has made it important to change the breed of sheep. It is peculiarly adapted environment that has brought these English breeds to perfection. The law seems inexorable. A Hampshire admirer in North England may want to grow Hampshires. The Hampshires will grow there, but they will never grow into those grand types found in Hampshire and Wiltshire, their long-time home. In different parts of the same county, you will find varying success

with a breed. Over here we seem satisfied with having a sheep and never catch the thrill of the man who breeds the perfect sheep of the kind.. How long, oh, how long, will it be before we have come into our own in America? The honest breeder of any breed can often help you in determining whether his sheep will suit your conditions. No honest sheep breeder wants to send his sheep where they will be failures. Select the right breed and then stick to it, and see that your flock improves every year. If it does not, something is wrong. Right it before going ahead.

5. *The attractions of sheep Husbandry.* Allow me to omit the material benefits, although I am conscious that in this commercial age the majority of men find most attractions in those pursuits that will swell the bank account.

It brings one into touch with men of fine character. Sheep men are generally men of high integrity, nobleness of purpose, perseverance, and kindly disposition. A man's work must influence his character. Those that succeed with sheep must have certain qualities which happily work out strength and beauty of character. The calling of the shepherd must be a noble one and his duties must be beautiful ones, for this calling has always been taken as a type of that tender relationship that the Saviour of man sustains to His people. The ancient shepherds who made plain the significance of this to men, must have been possessed of rare qualities; their watchful care, their self-sacrifice, their gentleness, made them fit to suggest these tender traits of the Good Shepherd to us, and at this Christmas season, as our minds turn to Him who became the "Lamb of God that taketh away the sins of the world," let us recall from Holy Writ some of the gracious things that were said of Him as our Shepherd, and let them set ever before us the beauty and nobleness of our own calling as shepherds, and may we all be faithful, for it might be that our faithfulness in these things will one day win for us His welcome plaudit, "Well done!" "The Lord is my shepherd, I shall not want. He maketh me to lie down in green pastures; He leadeth me beside the still waters. Beautiful picture of the Shepherd's care!

Again, "He shall feed His flock like a shepherd; He shall gather the lambs with His arms and carry them in His bosom, and shall gently lead those that are with young." Beautiful picture of the shepherd's love and gentleness!

I had other fine things of the shepherds' calling to tell you of, but they would seem out of place now, so we will continue this later. And, now, I want all of the shepherds in Dixieland to have all the joy and Christmas cheer that belongs to the faithful keepers of the flocks.

H. B. ARBUCKLE.

INTENSIVE FARMING.

The trucking or market garden section of Virginia, the Eastern section; the section around the Norfolk Seaport; is well along on the road to intensive tilling of the soil.

The cultivation of the soil for the truck crops being much more thorough and intensive than for corn in corn section, or for hay or other staple crops.

Still there is room for wonderful development even here in this already intensively cultivated section. We have a report on file in our office from a gentleman friend of ours, giving a little experience of his with sweet potatoes.

The gentleman has passed the three-score-and-ten mile post, and his head is gray on the outside, and chock full of "gray matter" on the inside. For nearly a half century, he has been connected with the manipulation of commercial fertilizers, and in that long period has accumulated much practical knowledge relating thereto.

He has been retired by the firm which he has served so long and faithfully, and now, in the sunset time of his life, busies himself in taking care of a cow, a flock of poultry, a small fruit orchard, and raising a few vegetables, near Norfolk.

On a measured plot of land he raised this year the finest sweet potatoes we have ever seen; at the rate of 521 bushels to the acre. Old sweet potato growers in the same neighborhood, men who have been growing the potato for years and years, dug a crop averaging not much over 100 bushels to the acre.

We saw the patch from which the potatoes were dug; we saw them before digging; saw them in a great pile in the barn after digging; saw them in our office, where we still have samples, and saw them on the table at breakfast, dinner and supper time, for such potatoes were worthy of a permanent position, and a prominent position upon any table three times each day.

This gentleman has no "axe to grind," no "point to make," no "selfish interest to promote," in any way whatever; no sweet potato plants or seeds to sell; no new variety of potato to introduce, and in fact, has no selfish interest to advance, either for himself or for any body else.

He has simply been guilty of making "four or more good big sweet potatoes grow where only one grew before," and we caught him at it; and while he modestly declines to say anything about it, we don't like to see such guilty men escape. Such men, methods and manipulation are just what are needed here to place our section in the front rank as a producing section. Such work and such results applied to our entire section, as surely will be done, will place Eastern Virginia in the foremost agricultural ranks, not only in production, but in population.

Norfolk Va.

A. JEFFERS.

The Poultry Yard.

KANSAS EXPERIMENT STATION EGG-LAYING CONTEST.

The egg-laying contest, arranged by the Kansas White Wyandotte club and conducted by the Dairy and Animal Industry Department of the Kansas Experiment Station, was completed October 31. Each contesting pen consisted of a male and six females, and the competition lasted one year.

The hens have made a fair record, and the average yield will compare favorably with that of other authentic egg-laying contest. Better records would probably have been made had it not been for some unfavorable conditions which accompanied the carrying on of such a contest; as, for instance, the transportation and frequent handling of the fowls, and the adaptation to strange rations and surroundings, all of which tend to diminish the egg yield. Besides these usual unfavorable conditions, the winter was the most severe ever known in the State. The pens in which it was necessary to house the contest fowls were of the curtain front type and built for the accommodation of twenty-five fowls each. This house with its ample ventilation, is perfectly satisfactory when filled with a sufficient number of birds per pen to maintain the heat, but with only the six hens prescribed by the rules of the contest, the house was cold and the egg yield was reduced proportionally.

The method of care and feeding followed were designed to bring out fair comparative results of the breeds and of the individuals, rather than forced egg yields. A variety of grain was fed the year round. This was fed in straw in the winter and in the yards in the summer. An evening mash was fed the entire year, composed at first of equal parts of bran, chop, meat-meal, shorts and linseed meal, and later of bran, chop, and meat-meal only. In the winter, mangles and alfalfa leaves, and in the summer, green alfalfa and rape, were used for bulky food. Oyster shell and grit were supplied. No fresh meat, hot mashies, ground bones, red pepper, patent foods or medicines were fed. The intention was to use only such foods as produced normal results and can be secured at any place and in any season.

The breeds entered in the contest were as follows:

1. Single Comb White Leghorns.
2. Rose Comb White Leghorns.
3. American Reds.
4. White Wyandottes.
5. Buff Wyandottes.
6. Barred Plymouth Rocks.
7. Light Brahmas.

Pen No. 1. S. C. White Leghorns laid 885 eggs.
Pen No. 2. R. C. White Leghorns laid 828 eggs.

Pen No. 3. American Reds laid 820 eggs.
Pen No. 4. White Wyandottes laid 799 eggs.
Pen No. 5. Buff Wyandottes laid 764 eggs.
Pen No. 6. Barred Plymouth Rocks laid 619 eggs.
Pen No. 7. Light Brahmas laid 539 eggs.

The total value of the eggs laid by Pen No. 1
was\$ 9.650
The food cost of these eggs was..... 4.764

Gain 4.886
The total value of the eggs laid by Pen No. 2
was\$ 9.743
The food cost of these eggs was..... 4.675

Gain 5.068
The total value of the eggs laid by Pen No. 3
was\$ 10.027
The food cost of these eggs was..... 5.579

Gain 4.448
The total value of the eggs laid by Pen No. 4
was\$ 8.944
The food cost of these eggs was..... 5.676

Gain 3.268
The total value of the eggs laid by Pen No. 5
was\$ 8.990
The food cost of these eggs was..... 5.678

Gain 3.312
The total value of the eggs laid by Pen No. 6
was\$ 6.736
The food cost of these eggs was..... 6.018

Gain718
The total value of the eggs laid by Pen No. 7
was\$ 5.936
The food cost of these eggs was..... 5.814

Gain122

HEN AND PIGEON MANURE.

Please tell me how, best to mix, and with what, pigeon and poultry manure?
Balt. Co., Md.

KIRBY EMORY.

Pigeon and poultry manure is mainly valuable for the nitrogen it contains. In order to conserve this and to make it a more balanced manure the droppings should be mixed with acid phosphate as they are cleaned out from the houses. This should be done every two or three days or much of the value will be lost. Add about an equal quantity of acid phosphate to the droppings and then mix the whole with good, rich, dry soil, so as to make it easy to sow or spread.—Ed.

The Horse.

NOTES.

Although of comparatively recent creation the annual fairs, with which are combined race meetings, of the Southwest Virginia Agricultural and Live Stock Association, of Radford, Va., have assumed important proportions and form a splendid exposition of the mineral and agricultural wealth of that section of the State. Already plans are being formed for a big fair in 1906, and great enthusiasm prevails among the officers and stockholders, among whom are men of wide popularity and prominence. Hal. C. Tyler, who has managed the affairs of the association with signal ability, has been wisely retained as secretary.

At a recent meeting of the board of directors of the Association held at Radford, Va., the following officers were chosen:

President, J. L. Vaughan of Shawsville; Vice President, Hon. Henry C. Stuart, of Russell county; Second Vice President, Prof. Andrew M. Soule, of Blacksburg; Secretary, H. C. Tyler, of East Radford; Treasurer, J. H. Barnett. Executive Committee, ex-Governor, J. Hoge Tyler, East Radford; Major John T. Cowan, Montgomery; Major W. W. Bentley, Pulaski; Captain J. G. Osborne, Captain W. T. Baldwin and G. T. Beamer, of Radford, and John L. Vaughan, of Shawsville. The Board of Directors consists of the executive committee and the following gentlemen: D. M. Cloyd, J. R. K. Bell, H. T. Einstein, H. B. Howe and Louis Harvey, of Pulaski county; R. M. Chumbley, of Montgomery, and M. Goldberg and W. M. Delp, of Radford.

John L. Vaughan, recently elected president of the Southwest Virginia Agricultural and Fair Association, owns Edgehill farm, a fine estate of 1,200 acres, near Shawsville, Va., where he breeds trotting horses Shetland ponies, cattle and other live stock. The Premier sire is Chief Director, son of Director General. The latter is now one of the best trotting sires in the country. Mr. Vaughan also owns some choicely bred brood mares and a lot of Shetlands that include some noted prize-winners.

A horse whose blood is proving a refining factor in the section with which he has become identified, is Planeteer, the California-bred son of Electioneer and Planetia, thoroughbred daughter of Planet.

The bay stallion is owned by Mr. W. E. Graves, of the wholesale lumber firm of Woodson & Graves, Lynchburg, Va. The blood of Electioneer has mingled kindly with thoroughbred strains, as witnessed in the production of such noted performers as Palo Alto, 2:08 3/4; Pako, 2:11 1/4; Pedlar, 2:18 1/4, and others. Planeteer was shown at the Lynchburg Fair last fall and with him some of his get, and the exhibit was

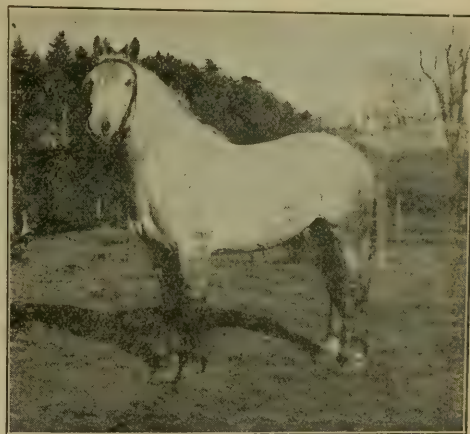
a pleasing one, because the youngsters were uniformly of good size, well finished and all nice bays or browns in color.

Capt. John L. Roper, of the Foxhall Farm, Norfolk, Va., is wintering there among other trotters, the bay stallion, Foxhall McGregor, by Robert McGregor, 2:17 1/4, dam Cleo, 2:19 1/4, by Gambetta; Gilmerton, bay gelding, 66, by Great Stakes, 2:20, dam Helice, dam of Clarion, 2:15 1/4, by Norval; a brown gelding, 3, by Great Stakes, dam Frances, 2:25 3/4, by Moscovite, and another two-year-old by a son of Foxhall McGregor.

Fewer horses are owned now at the farm than formerly, as Capt. Roper has decided to breed poultry and is preparing to enter the field on an extensive scale. As banker, capitalist and extensive real estate owner, the master of Foxhall Farm is widely known, and further be it said, his deeds of charity are many.

On a bid of \$21,000, Cresceus, 2:02 1/2, the champion of trotting stallions, was sold in Madison Square Garden to W. M. Savage, of Minneapolis, Minn., proprietor of The International Stock Food Co., who owns the former champion, Directum, and the famous pacer Dan Patch.

BROAD ROCK.



Monarch. A Percheron Stallion, Property of Henry Warden, Virginia.

Monarch was foaled April 20 1901, Sire Bordeaux by Fourrageur, Dam Empress, by Pas Louis. Monarch weighed, in September last, 1585 pounds. He is regularly used on the farm and road besides doing stud duty, and stands work as well as any horse on the farm.

HENRY WARDEN.

Inquirers' Column.

Enquiries should be sent to the office of THE SOUTHERN PLANTER, Richmond, Va., not later than the 15th of the month for replies to appear in the next month's issue.

CANADA PEAS—CURRANTS.

1st. When is the best time to sow Canada peas in this county (Albemarle)?

2nd. How many bushels to the acre and how deep should they be sown?

3rd. I set some two year old currant bushes out this fall, would it hurt them to let them bear fruit this spring?

Albemarle Co., Va.

JOHN D. GITCHELL.

1. Canada peas in your section may be planted in February and March.

2. Sow two bushels to the acre, with half a bushel of Burt or Rustproof oats. Sow the peas broadcast and then plow then down, so as to give them a cover of 4 or 5 inches or drill them 4 or 5 inches deep and then sow the oats and harrow them in.

3. No. They will not probably produce more fruit than they are well able to mature.—Ed.

SEED CORN.

I have for the last 10 years been trying to keep pure seed corn for high land but have been unsuccessful. It will get mixed with my neighbors crops, and in the course of three or four years I have again a mixed lot of grain. The greatest difficulty I have is that the stalks have a tendency to grow taller every year and when I plant such corn on highland I have in the next crop a large number of barren stalks. My ideal corn for highland is a close jointed leafy stalk, not over 8 feet high. From my experience, I believe that we must get seed corn from some other locality. What I would like to know is, would you advise me to get seed from a northern State, say Pennsylvania or Indiana, or get it in Virginia. I have bought at three different times, seed corn from a reliable house in Virginia. From one purchase I succeeded in getting a good crop on highland, from the second lot I did no better than with my own over grown stalks and had too many barren stalks. The third lot I planted part on creek bottom and part on highland. All of it made a large crop of stalks, the yield of grain on the bottom was very good, but on the highland it was almost a failure. The rainfall that summer, was about normal. Do we not run the risk when we buy Virginia grown corn of getting seed raised on bottom lands, still true to name and appearance, but which has acquired the habit of using large quantities of plant food and requiring abundant moisture? Which variety would you recommend for high land?

Albemarle Co., Va.

J. J. HERDT.

In the last issue of THE PLANTER, we published part of an article on this question of selection of corn and continue the same in this issue. It is written by Prof. Soule of the Virginia Experimental Station, who has given much study to this question. If you will carefully read and study this article, you will get much information on the subject. Personally we are strongly of opinion that it is inadvisable to send far away for seed corn. A variety thoroughly acclimated to a section, always does best there. All corn has a tendency in this Southern climate to run to tall stalks and this can only be controlled by constant, careful selection of the seed from a type of stalk which

meets your requirements and the growing of new seed specially from these stalks in a plot of land far removed from any other corn crop. Care should always be taken to remove all tassels from barren stalks before they have scattered their pollen, or these barren stalks will perpetuate their evil qualities. Mr S. B. Woods of your county some years ago bred a type of corn on the highland in your county which made excellent yields and with which he secured the Breeders' Gazette premium. He called it Albemarle Prolific. We have had excellent reports upon it from other growers. Try this variety. It is acclimated to your section.—Ed.

COTTON SEED PRODUCTS.

Will you please state in your next issue the number of pounds of meal, hulls, linters and oil produced from a ton of cotton seed, giving the market value of each product.

Beaufort Co., N. C.

F. J. GUILFORD.

The average of a number of tests of the contents of cotton seed, gives the following results: Meal 35 per cent., Hulls 35 per cent., oil 20 per cent., linters 10 per cent. This would make the weight of the meal 700 lbs., hulls 700 lbs., oil 400 lbs., linters 200 lbs. We are not able to give the present market value of these different products as we have not any report of recent date, giving this information.—Ed.

SHINGLE ROOFS—CEMENT—BEEF CATTLE—JOHN-SON GRASS.

1. What is a good cheap treatment to preserve a shingle roof?

2. How to treat shingles before putting them on? (How about gas tar or flax seed oil?)

3. How many grades of Portland cement are there?

4. What is the best beef breed of cattle for the South, where Bermuda is the foundation for pastures, and John-son grass and pea hay the rough feed for winter feeding (I mean of the Shorthorn Hereford and Aberdeen Angus)?

5. As the Department of Agriculture recommends sowing Johnson grass, is there any law to forbid the sowing or letting it seed?

Forsythe Co., N. C.

SUBSCRIBER.

1. Probably the best preservative for a shingle roof already laid will be to paint with gas tar or some of the specially prepared roof paints offered by the paint dealers. Personally we should use gas tar with some pitch mixed with it. Melt the two together and apply hot.

2. Shingles treated with good boiled flaxseed oil before being laid, so as to get the same soaked into them would no doubt last very much longer.

3. We cannot answer this question. We believe it always wisest to use the best quality. It goes further and it can be relied upon to stand. We have always used this quality and never were disappointed in the work.

4. See the article on beef cattle in this issue. We think either the Hereford or Angus would suit you.

5. We know of no law forbidding the seeding of Johnson grass in this State or North Carolina. We believe that Texas has such a law.—Ed.

TRAINING HOUNDS.

Will you or some of your readers give us a chapter on training young hounds to run hares?

Richmond, Va.

"READER."

We know nothing about this business. Perhaps some of our readers may do so.—Ed.

IRISH POTATO FOR NAME.

I send you a potato about which there seems to be some doubt and considerable dispute. I have raised it for many years under the name of the old fashioned Peach Blow, but a great many contend that it is not the Peach Blow. At any rate it is the most prolific and best keeping potato we have ever had and will thrive under conditions where others fail. Planted the 30th of June, this year it produced at the rate of 125 bushels per acre, without the use of manure or fertilizer of any kind. Its red skin interferes somewhat with its commercial use. It will keep from one season to another and stands the drouth remarkably well. As many as 10 of the size of the specimen sent you were taken from one hill. Let us have your decision.

Caroline Co., Va.

G. W. MOSS.

The potato sent is a fine well grown tuber of above average market size, but we don't think that it is the old Peach Blow. It is coarser in appearance than the Peach Blow, as we knew it years ago, and the red color is deeper and more pronounced all over the tuber. In these respects it is more like the Dakota Red and we should be inclined to believe that it is a Dakota Red, somewhat changed, by being grown continuously in this section. It is evidently, however, a potato worth growing for home use, though the market always discriminates against a red potato.—Ed.

TOP DRESSING WHEAT—APPLYING FERTILIZER TO GRASS LAND.

Please advise me through next issue of the PLANTER, if it will pay to top dress wheat in spring with nitrate of soda on land that will only make (as it is) 12 to 15 bu. per acre. How much should be applied, at what stage of the growth of the wheat? And also what have been the results of practical and careful tests along this line?

At what time in winter should acid phosphate and potash be applied to a 2 year old meadow of Tall Meadow Oat grass. Also will 200 lbs. good cotton seed meal do as well as 100 lb. nitrate of soda for top dressing above meadow, and if so, at what time should the cotton seed meal be applied?

NORTH CAROLINA SUBSCRIBER.

Davidson Co., N. C.

We have had most excellent results from top dressing wheat with nitrate of soda in the spring and strongly advise its use for this purpose. It should not be applied until the wheat commences to grow freely and should then be applied broadcast at the rate of 100 lbs. to the acre, sowing the same when the wheat is not wet with dew or rain. It will melt with the dew and sink into the land and be at once absorbed by the roots of the crops. We have seen it show most decided results in a weeks' time, changing the wheat plants to a dark green healthy color, and stimulating the growth wonderfully. We have frequently known it to increase the crop from 10 to 15 bushels to the acre. The sooner mineral fertilizers like acid phosphate and potash are applied to land in the fall

or winter the better. These fertilizers are slow in becoming available and are always best applied when they can be worked into the soil. As a top dressing they are never so effective as when worked in. The best nitrogenous top dressing is nitrate of soda at the rate of 75 or 100 lbs. to the acre. Nitrogen applied in an organic form, like cotton seed meal, is not usually very effective as a top dressing. Like the mineral fertilizers it is best worked into the soil. Before the nitrogen in the meal can become available it has to decompose and decomposition is slow on the surface. The nitrogen in nitrate of soda is immediately available. Apply after the grass commences to grow.—Ed.

COW PEAS—SHUCKING CORN—CUTTING WOOD—USING STRAW—SEEDING CLOVER.

Please answer the following questions in the next issue of your paper:

1. How many cow peas, per acre, should be sowed for the purpose of improving land?
2. How many barrels of corn (figuring 5 bushels to the barrel) should one man be able to shuck in a day?
3. How much hard wood should one man be able to cut in a day?
4. How many tons of straw should 35 head of stock be able to eat and trample under foot per month, as manure?
5. Can a crop of clover be planted on land that has been in peas which have been turned under, or must the clover be planted with wheat?

F. B. GUEST.

1. If sown broadcast, 1 bushel to the acre. If drilled half this quantity will be sufficient. For improving purposes only, the peas are usually sown broadcast. For seed they should be drilled and cultivated once or twice.

2. This varies much according to the expertness of the shucker. One man will shuck 3 barrels per day, whilst others have been known to shuck 8 barrels.

3. From 1 to 1 1/2 cords into stove lengths.

4. Such a herd of cattle would, during a winter's run in a straw yard, reduce into manure almost an unlimited quantity of straw, if given the opportunity. They would eat probably not more than 8 or 10 pounds per head per day, but would waste many times more than this quantity and this waste would become fitted for applying to arable land and should be plowed under to rot.

5. Yes clover may be seeded after cow peas and will usually make a good stand as the cow peas leave the land in fine condition for any crop. The clover is better seeded in the fall, though if this has not been done, it may be sown in February or March. The best way to sow is with a drill, as this ensures covering the seed. More clover stands are lost from the seed not being put in deep enough to thoroughly cover the seed than from too deep seeding. If not drilled, harrow the seed well into the land.—Ed.

FERTILIZER FOR COTTON CROPS.

I have a piece of land that I am going to plant in cotton this coming year, the clay on this land is from 15 to 18 inches from the surface. It may be termed high land although it is not light, sandy land.

I am thinking of breaking it with a two horse plow and applying lime at the rate of 400 lbs to the acre, then I intend to put in 600 lbs. of a mixture of Kamit, Phosphate

and cotton seed meal. Do you think this would be a good plan for the crop, if not please tell me what you think is better.

I am also thinking of using some lime under my entire crop. Please advise me what amount to start with, as I have never used any lime on my land before; also tell me in what way to apply it.

Bladen Co., N. C.

S. F. CAIN.

Break the land deeply and thoroughly at once and apply 1,000 lbs. of lime per acre, not 400 lbs. Even 1,000 lbs. is a very light application. We have applied 2 or 3 tons to the acre many times with advantage. Spread this lime on the surface after plowing and harrow lightly and leave until spring. Then cross plow or thoroughly work the land with a cultivator or disc harrow and lay off the rows. Apply in these rows a fertilizer made up of 1,200 lbs. of acid phosphate, 600 lbs. cotton seed meal and 200 lbs. kainit to make a ton. Apply at the rate of 400 lbs. to the acre and mix well with the soil in the rows a few weeks before planting. When ready to plant freshen up the rows with a cultivator and plant and you should make a crop.

Apply lime for the other crops, broadcast on the land as soon as plowed, at the rate of 20 bushels (1,600 lbs.) to the acre, and harrow in lightly.—Ed.

SWEET POTATOES—IRISH POTATOES—CLOVER SEED—LIME.

1. My sweet potatoes have a black formation on them that spreads and eats through them.

What is the trouble and remedy?

2. Irish potatoes "Peach Blows," some of the large ones have decayed centers. Please give cause and remedy? The seed potatoes were gotten from a neighbor. Should they be gotten from the north?

3. Can a small farmer save his own clover seed, and how?

4. Is agricultural lime, I mean brands such as Lee's for example, superior to and cheaper than a cheap builders lime for the soil.

Henrico Co., Va.

H. A. P.

1. This is a fungoid disease which spreads from the sprouts—generally starting in the seed bed and therefore great care should be exercised in selecting seed potatoes from stock that is not affected. It then propagates in the soil and affects more or less all the crop. Land which has grown potatoes, affected with this disease should not be used for another crop of sweet potatoes for several years. There is no other way to get rid of it. Carefully examine all your potatoes and take out all affected with the disease, or they will all rot.

2. This hollow disease in the center of the Irish potatoes is usually caused by too wet a season. They overgrow themselves and then become hollow and diseased. We know of no remedy for it except to plant on dry well drained land. It does not matter where you get the sets if the season is a wet one, you will have more or less of these hollow potatoes.

3. Yes. You can save the seed by threshing it out, but will have to sow in the chaff, unless you can get a clover hulling machine to thresh and clean it.

4. For agricultural purposes the lime from the kiln is better and cheaper than any of the so called agricultural lime mixtures.—Ed.

CARBIDE OF LIME—SEWAGE REFUSE.

Have a chance to rent a farm near big boarding school. Can get refuse of Carbide of lime which is result of making Acetylene gas for school buildings. At present there is 200 or 300 tons of this lime piled up in the woods. Has it same value as shell and stone lime for fertilizer on land?

Can also get free of cost, except labor of removing the solid and liquid matter, after passing through a Waring sewage outfit.

Large amounts of potash and soda salts from kitchen in addition to phosphates and urates and solid excrement (human) can be obtained.

Having the above fertilizing materials so handy and cheap, please advise if all of them are not highly valuable and how to use them.

Washington, D. C.

D. E. BUCKINGHAM.

No experiments have so far as we can ascertain been made in the use of this Carbide refuse for supplying lime to the land. No doubt it contains a large quantity of lime, but whether in a form which will be readily available or whether charged with any poisonous matter is not known. It should be tried experimentally, at first, after being exposed for some time to the action of the air.

As we are unacquainted with the chemicals used in the Waring process to precipitate the solid matter, we are unable to say what will be the effect upon the refuse matter as to its availability for plant food. If the chemicals never had any good foundation. Plants need potash salts used are not deleterious, the sewage refuse should be valuable. The soda salts have very little value as a fertilizer. It was claimed at one time that these salts could take the place of the potash salts in a fertilizer, but this is not true. Plants want potash, but do not need soda. The human excrement is valuable and should be applied broadcast, composted with soil.—Ed.

THE AUSTRALIAN CONTEST.

The report from Australia shows that White Leghorns led in the egg-laying contest up to the first of August. This pen of White Leghorns laid in four months 557 eggs. In the monthly prize awards, the highest total for a pen was made by Langshans, 168 eggs in one month, or an average of 28 eggs per month to each hen. The grand total for the 100 pens, or 600 birds, beginning April 1, ending August 31, was 37,357 eggs, or an average of 62 1-4 eggs each for five months. If this ratio continues in this proportion, it would be about 125 eggs per year for each hen; but the marked increase each month promises better than this.

In the duck egg-laying contest in the same country, the Buff Orpingtons and Indian Runner ducks seem to have very much the best of it. Buff Orpington ducks from the same stock that won the contest last year are in ascendancy. During August, one pen of Buff Orpington ducks produced 181 eggs, six ducks to each pen. Each duck of the six laid an egg every day for 27 days in the month; three days in the month five eggs were laid; the first day, four. This is the best month's record known for ducks, and must be a surprise to all who imagine ducks to be indifferent egg-producers.

Miscellaneous.

SELECTING CORN.

PART II

Possibilities of Selection.

The selection of the type of ear and stalk adapted to local conditions is a matter of the greatest importance, and in order that the right type be chosen, a careful individual study must be made from the time the crop is started, and not be undertaken only along towards the end of the crop season. The importance of starting early in the season is due to the striking individual characteristics of certain plants throughout the field. These should be marked and watched, for it is the exceptional qualities developed in the individual that has made it possible to achieve such wonderful things in the breeding of horses, beef and dairy



An example of prolificacy, due to breeding and selection.

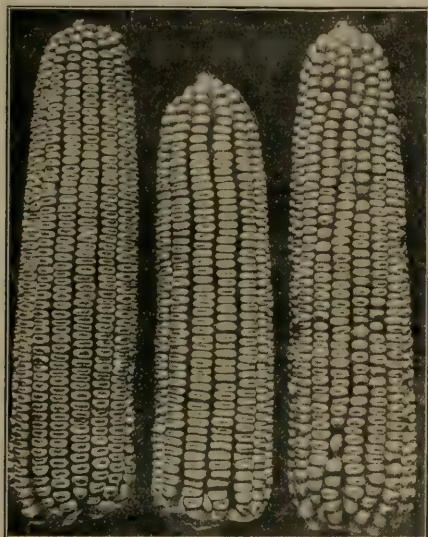
cattle, and the principles in breeding plants are certainly analogous. It is the individual possessed of peculiarly well developed inherent hereditary powers that should be sought for a mother plant, for the matter of vitality and vigorous reproduction is a most important problem to the corn grower.

Other desirable qualities of the corn plant may be affected by selection; for instance, the placing of the ear so as to bring it closer to the ground may be affected. The length of the shank to which the ear is attached can be changed, as well as the position of the ear. With these facts in mind and a closer perception that man has a mastery over corn and can adapt it to his will, the selection becomes a matter of greater interest and concern to the farmer, for it

is a simple process, requiring but comparatively little time to effect these changes so worthy of consideration. It is also a most fascinating study, for when once the idea that plants and varieties can be changed and molded to the will of the master mind becomes an established principle, the worker becomes enthusiastic, and the results obtained will naturally be far greater.

If one desires a prolific variety of corn, selection must be made from stalks producing two or more ears; and now, as to the type of ear to select: That will depend a good deal upon the variety and the conditions under which the corn is to be grown. One or more medium sized ears per stalk, with a small cob, will outyield one very large ear. It is not desirable to develop coarseness in either plants or animals. Select only ears that are well silked and have a good covering of husk coming well over the tip. Too much husk is objectionable, as it is an indication of coarseness. The shank bearing the ear should be short and not over an inch to an inch and a half in diameter. The ears should point downwards so they will shed the water better. The number of rows to select per ear will vary greatly with the variety, but the standard should be from 16 to 24. In some varieties the number will sometimes run down as low as 12, but it is desirable to get it up to 16 as nearly as possible. The rows on the cob should be as nearly straight as possible, and the grains should be even in length and character from end to end of the ear. The cob should be perfectly straight and of uniform size and not tapering off to a point, as is so often the case, for when that happens, the grain will likely be deep at the butt and shallow at the tip. In such forms, they will not go through the planter uniformly, nor will they have the size and bulk of grains uniformly developed. The grain itself should be rather a wedge shape and long rather than broad, but not too long. With a white corn, the cob should be white and the grain flinty in texture, with a large and well developed germ. In a yellow corn, the same qualities as to type of grain should be sought. The tip and butt of the ear should be well covered, the grain on the butt coming down close to the shank. In bad seasons this is not a matter of such great importance, for sometimes a drought may affect the pollination of the silks and prevent all of them developing perfect grains. Under such circumstances, the perfect development of the tip and butt may not be a matter of great importance. The average corn-breeder probably recognizes that each silk represents a grain of corn when properly fertilized by the pollen from the tassels, but unless each grain is properly fertilized, the ear will be imperfectly developed. The pollen

grains are very easily affected by wet weather or by severe drought when they are in the height of their development, and hence a few days of bad weather may result in an unevenly developed ear. Under these circumstances, it is not well to lay too much stress on the development of the tip and butt. It is important, in the selection of a type of ear which is to be standardized, that an ideal be clearly fixed



1. Defective grains due to imperfect pollenization.
2. Rows too open.
3. A good type of ear to select.

in the mind and kept definitely in view for all time in the future. In fact, it would be well to preserve some of the type ears from the first selection if they reach the breeder's ideal, and keep others from each year's selection for reference.

It is also important that the rows of corn on the ear be uniform, and that none of them squeeze out, as it were.

Field Selection.

Having decided on the type of ear, go through the corn field early in the season, as already indicated, and pick out the plants which seem to show special vigor and which are apparently fertilized by the pollen from neighboring plants of desirable quality. If any of the stalks and ears fail to develop satisfactorily, discard them, and as soon as the corn begins to ripen, go to the field with sacks and pick out the ears from desirable stalks that most nearly approach the type in mind, carry these to the house or barn, and put them safely away in rat-proof cages. They

should be placed on open slats after shucking, so as to dry uniformly. Ears taken from each plant should be carefully labelled, for these are to provide the grain for the seed patch next season. When the weather becomes cool, store the corn so that it will be kept at a uniform temperature and not be subjected to damp weather or to violent freezes.

During the winter time, test the vitality of the corn by taking grains from different parts of the ear, and placing them on moist sheets of blotting paper which should then be folded securely and placed in a cigar box containing several moist newspapers. Wrap the newspapers over the blotters containing the grains from the several ears and leave them alone for two or three days. In this way, the percentage of grain that will germinate, and the vitality of the seed, can be ascertained. It will be surprising to see what differences there are in the inherent vitality of grains from certain ears. These grains from these ears should then be selected for the seed patch and others be discarded or used for general planting.

After testing the vitality, the protein content of the grain should be studied, and this may be done by taking a few grains from each ear and cutting them open crosswise and lengthwise. The size of the germ and the amount of the flinty matter will determine quite accurately whether the grain is high or low in protein. If there is a large amount of starch, it is evident that the grain is comparatively low in protein; if there is a small amount of starch, the reverse is true. With these facts in mind, it is easy to develop a strain of corn high in protein and low in starch, or high in starch and low in protein, or high in protein and oil, as the case may be, for the oil is all obtained from the germ, and grains should be selected that have large, vigorous germs, where a high oil content is the object in view. It is quite possible, by selecting for an increase or decrease of protein, to balance up the corn and make it more satisfactory as a grain food for cattle or horses than is often the case at the present time.

This brief review of some of the means of selection and some of the things that may be affected thereby, will indicate the possibilities of the work when carried on along systematic lines. The importance of testing the grains from selected ears is brought out by the following facts in a test made by the writer where seed was taken from a number of well established varieties. It was found that the germination of the grain varied from 27 to 92 per cent. If these figures are applicable to field conditions, it might happen that by using certain grains, a farmer would only obtain one-fourth of a stand, whereas, if he used another variety, he would probably obtain a perfect stand. It is worse than useless to prepare a corn field and seed it with grains which have not been thoroughly tested so as to provide a uniform stand.

It is also important that the grains used in planting be of uniform size, as some planter tests made by the writer, show very clearly. In one of these tests, with the corn from the whole ear where the planter was run on the barn floor and fifty drops made, 2 kernels were dropped 16 times, 1 kernel 30 times and nothing 4 times. Where deep, uniform grains only were used, 1 kernel was dropped 44 times, 2 kernels 4 times, 3 kernels 1 time, nothing 1 time. Where grains taken from the middle were used, 1 kernel was dropped 29 times, 2 kernels 10 times, 3 kernels 1 time, no kernels 10 times. By shelling off butt and tip of the ear and taking the grain from the center, it is possible to get a much more uniform grain which insures the dropping of about the right number of grains in each hill and a much more uniform stand. The matter is so simple that one would suppose it would be done uniformly, but in practice it is rarely, the case. . The matter, however, is of sufficient economic importance to merit the attention of every corn grower.

[To be continued.]

ANDREW M. SOULE,
Dean and Director.

Experiment Station, Blacksburg, Va.

THE VIRGINIA COLLEGE OF AGRICULTURE.

Editor Southern Planter:

The College of Agriculture of the State of Virginia constitutes a department of the Virginia Polytechnic Institute and is located at Blacksburg, Montgomery County, Va. The growing interest in agricultural education is evidenced by the fact that there are now nearly 100 students pursuing agricultural and horticultural studies in this institution. The demand for men trained along all agricultural lines is so great that it is surprising that the number is not 500. In a recent address at Richmond, Secretary Wilson said that the State of Virginia should have at least 5,000 students pursuing work along agricultural lines. Another gentleman stated that while Virginia spends between \$200,000 and \$300,000 annually for higher education, and "spends it wisely and well," comparatively little is spent for the education of the farmer's boy in the great profession of agriculture. Yet this is the chief industry of the State, and by reason of natural conditions, must continue to be so for all time.

Is it not important that more attention be given to education of the boy from the farm, in order that he may go back and rebuild up soil which careless culture has destroyed? Nothing can be done of greater permanent value to Virginia than to have the \$10.00 an acre land, about which so much has been said, improved and made worth \$100.00 an acre. Thou-

sands of acres of unproductive land in the State are a menace to our prosperity. We have the most delightful climate in the world, unsurpassed market facilities right at our door, and an enormous demand at profitable prices for all farm crops. There is just one thing wrong, and that is a proper appreciation of the need of agricultural education.

At the opening of the fall session of this institution, the writer was placed in charge of the registration of student, and it was not difficult to understand why so few boys were interested in agricultural education. Though the majority of our boys come from the farm, they enter with the idea in mind that they are going to be engineers or follow some other profession than that of farming. Why is this? Simply because they know nothing of agricultural education or the possibilities it opens up to them. They have seen farming conducted after a slovenly, haphazard fashion, and often without profit. Is it any wonder that they are disgusted and anxious to get away from it, particularly when the public schools do not provide a course of training that would lead them to a due appreciation of agriculture as a profession? All this must be changed if permanent prosperity is to come to Virginia.

The importance of this subject leads me to feel that the general public should know something of the provisions made for instruction in agriculture in this State. The last Legislature made an appropriation for the erection of a building for the Virginia College of Agriculture. Unfortunately, the amount of money asked for was not sufficient to construct a building commensurate with the needs of the work, and while a handsome stone structure has been commenced, it is now only two stories high and cannot be completed without the appropriation of additional funds. In the meantime, the agricultural department occupies several small rooms in a dwelling house.

The need of completing this building at the earliest possible date, must be apparent to all, particularly if any progress is to be made in the instruction of students and in the development of those scientific researches connected with the Experiment Station which have been shown to have such vital relation to the interests of our farmers on more than one occasion. It will take about \$75,000.00 to complete and equip the agricultural building, and this is certainly a small sum for a State enjoying the prosperity of Virginia at the present, to spend for the purpose of teaching the farmer boys of the State the fundamental truths of agricultural science. Some of the departments to be housed in the new building are as follows:

The Dairy department will occupy the larger part of the basement, and ample provision will be made for the receiving handling and pasteurization of milk, the making of butter and cheese, and milk

testing. Rooms for the curing of cheese at various temperatures will form a part of the equipment.

The second floor will be occupied by the executive offices, the library, bulletin mailing rooms, and laboratories for animal husbandry, seed investigation, etc.

The third floor will be occupied by the department of horticulture, veterinary science and mycology, and the fourth floor by laboratories and classrooms for research in agronomy, bacteriology, entomology and soil investigation. The attic or fifth floor will contain the museum, rooms for the agricultural club, laboratories for photography, etc.

Provision has thus been made for every feature of agricultural instruction and research, so that it will no longer be necessary for the boys of Virginia to go elsewhere to receive the best possible training along agricultural lines.

The College Barns.

Five large barns have been erected on the College grounds, each designed for a special purpose. The largest and most imposing of these is the dairy barn, which has stall room for a large number of animals. The granaries in this barn have a capacity of 2,500 bushels of corn, and large mows provide abundant room for the storing of hay, shredded stover, etc. There are also two large silos, each with a capacity of 200 tons. The cattle are stabled in wings running out from the rear of the barn and so arranged that the lighting and sanitary conditions are of the best.

To the left of the main barn is the hog barn and slaughter house; a series of radiating paddocks connect with this barn so that the hogs confined therein have ample opportunity for plenty of exercise. This barn contains a series of pens for the brood sows and storage room for the grain, and it is well suited for the purpose for which it is designed.

To the right of the dairy barn is the implement barn. This structure is open on the south side, so that the wagons and other implements can be readily backed under cover. The upper floor is entirely occupied by implements and the repair shop.

A new barn, 120 feet long, was recently completed, designed especially for the feeding of beef cattle. There is ample storage space above for hay and other coarse fodders, and the space beneath is divided into pens large enough for eight or ten animals. Sliding gates divide the different sections of the barn and it is so arranged that the manure can be hauled directly out by wagons.

The fifth barn is devoted to the work of the department of field investigation. It has ample granaries and storage space for crops, both threshed and unthreshed. The basement provides an implement shed and stable, and the structure is complete and modern in every detail.

Courses of Instruction.

Several courses of instruction are offered by the agricultural department, and others will be added as soon as suitable facilities are provided. The four years' course which leads to the degree of B. S. is designed to give the student a liberal education, and at the same time he is instructed with regard to those sciences that pertain to agriculture and gives an opportunity to acquire the best information with regard to both the theory and practice of general agriculture in all its important branches. Special stress is laid on the subject of agronomy, animal husbandry, dairying, farm management, agricultural bacteriology, veterinary science, mycology, horticulture biology, agricultural chemistry, and geology. A faculty of twenty-five specialists enables the instruction to be given in a thoroughly up-to-date and satisfactory manner.

There is also a three years' course in practical agriculture, and a certificate of standing is given to all students who complete it in a satisfactory manner.

It is intended especially to meet the needs of those young men who desire to obtain the rudiments of an agricultural education, but do not feel that they have either the time or money to take a four years' course. As soon as the new agricultural hall is completed, short courses in agronomy, dairying and animal husbandry will be offered. In the meantime, special courses in the subjects can be arranged for a limited number of students, and post-graduate courses can be arranged for on application. The College is thus in a position to take care of all students who apply for collegiate instruction in agriculture, whether they desire the full degree course, post-graduate or other special courses.

The College Farm.

The College farm comprises about 1100 acres, part is leased and part is the property of the institution. The work of crop production can thus be carried on on a large scale, and sufficient land is available for grazing the various herds of cattle and sheep maintained for student instruction and experimental research. The farm is well supplied with teams and modern implements and farm machinery of every description. Thus, the students have a chance to become familiar with actual farm operations on a large scale, which insures a practical trend to the training they receive.

The location of the farm is ideal in many respects. The ground is gently rolling, and, for the most part, drains well, and the land is fairly fertile. It provides sufficient arable land to enable the undertaking of a comprehensive series of experiments. A careful survey of the farm has been made during the past year, and 300 acres set aside for rotation experiments.

One hundred and twenty-five acres of corn are grown for grain each year in addition to the hay required to supply the needs of the large number of animals maintained on the farm.

A careful and accurate record is kept of all the work done on the farm, so that it is possible to know just what a bushel of corn costs. To do this, a painstaking system of bookkeeping has been inaugurated, because the various experiments provide information which is most valuable to farmers, and unless the records are carefully kept, the results would be worthless. Few people appreciate how laborious an undertaking it is to keep an accurate record of the operations on an extensive farm, but our experiments are conducted on such a large scale that the results, when once obtained, will be applicable to farm conditions in practically every section of the State.

The Herds and Flocks.

Over 150 head of pure-bred animals are maintained on the College farm. The herds, of necessity, are not large, owing to the expense of maintaining them. A careful record is being kept of these animals, and a number of very interesting cross-breeding experiments are in progress for the purpose of determining the relative merit of the various pure-bred sires when used on native and high-grade cows. One of the greatest problems in Virginia is how to improve the great number of farm animals of undesirable quality at the lowest cost, and this question is receiving careful attention. Representative herds of Short-horns, Herefords and Aberdeen Angus are maintained so that students and visitors may have an opportunity to compare the type and quality of the three principal beef breed. Herds of Jerseys, Guernseys and Holsteins are maintained to test their relative merit for dairy purposes and provide milk for the student body. These animals are principally kept, however, that experimental data may be obtained, and the best and cheapest methods of maintaining and feeding dairy herds worked out for the benefit and guidance of our dairymen. A good flock of Dorset sheep and Berkshire swine are maintained on the farm. Grazing and feeding experiments with hogs are in progress at all times. In addition, 100 head of cattle are bought each year, part fed during the winter and sold for immediate slaughter, and the balance fed on grass for the rest of the year that the relative cost of making beef in the stall and on grass may be determined for the benefit and guidance of our farmers. The work in the department of animal husbandry is receiving special attention, and every effort is being made to foster it because its relation to soil fertility is so clearly defined.

The Experiment Station.

The Virginia Agricultural Experiment Station

is located at Blacksburg, and, by law, constitutes a part of the College. The Experiment Station is maintained for the purpose of making original investigations which will be of direct benefit to the farmers of the State. The Station is endeavoring to protect the best interests of its constituents by maintaining departments for investigation and research in agriculture, live stock husbandry, field experiments, horticulture, chemistry, bacteriology, veterinary science and mycology. All of these departments are conducting experiments of a scientific and practical nature. These results are published from time to time in the form of bulletins, which are distributed free of cost to the farmers of the State for the asking. The investigations in progress cannot all be enumerated here, because they are too numerous and complex. For example, feeding experiments have recently been concluded with 60 head of beef cattle, another with 60 head of hogs, and another with 24 head of dairy cows. In the case of the cattle, it was found that silage made a cheaper and better roughness than either shredded stover or timothy hay, and as silage can be made cheaply on every farm in Virginia, the advantage of feeding it in the place of timothy hay will be readily understood.

The bacteriological department has been sending out cultures for the inoculation of various legumes at a cost of 25 cents per acre. In this way, it has saved the farmers of Virginia several thousand dollars during the present year.

The dairy department has shown the farmers how to ship cream long distances successfully, and has done much to stimulate the development of dairy interests in the State.

The department of field investigations is selecting, breeding and improving standard varieties of cereals for distribution to Virginia farmers. Thus, the Experiment Station is an important factor in building up the agricultural interests of the State, and the farmers who are not familiar with its work, and are not receiving its literature, should hasten to acquaint themselves with its functions, and come in contact with its stores of information and inspiration as soon as possible.

The Orchards and Gardens.

The horticultural department has over 50 acres laid out in orchards, vineyards and gardens. Over 650 varieties of tree fruit are grown on these grounds, enabling the department to furnish valuable information to all those who contemplate planting orchards. Over 100 varieties of grapes and many varieties of bush fruits and vegetables are grown. At the present time, the department is engaged in testing, not only varieties of fruit, but in hybridizing various varieties of apples to see if new and better varieties can be obtained for Virginia conditions. A special effort is being made to secure a variety that will bloom

late, so as to avoid the destructive effects of early spring frosts.

This department also maintains a cannery where fruits and vegetables are preserved and provision is made for the manufacture of various fruit by-products, such as cider, jellies and vinegars. The College campus furnishes material for studies in landscape gardening, so that the department is fairly well equipped and in a position to render yeoman service to the horticulturists of the State.

Miscellaneous.

The College maintains a creamery and cold storage plant chiefly for the purpose of student instruction and investigation. In this creamery milk from the surrounding country is received and manufactured. The creamery is thus in practical operation throughout the year, and those desiring to acquire special information relative to the subject of dairying, can come to the College and take special courses.

The veterinary department occupies a building of its own and gives special attention to the instruction of students and to the investigation of such problems as properly come within its province. Some excellent work has been done in devising some simple and effective apparatus for the treatment of milk fever, the scourge of the dairyman and for the destruction of flies, which annoy both beef and dairy cattle, causing the former to lose flesh and the latter to fall off in milk.

Applicants for admission to the College must be at least 16 years of age and proficient in English grammar, physical geography, history of Virginia and the United States, arithmetic and algebra to quadratics; also in Latin grammar and two books of Cæsar, if they wish to pursue a course of study in which Latin is required.

The expense of a student for a full collegiate year of thirty-six weeks may be estimated at \$225.00. Four hundred scholarships exempting from tuition fees are offered to Virginian students. The College thus provides an opportunity for obtaining a general agricultural education, and also for specialization along many lines. With the completion and equipment of the new building, the facilities for instructions will be greatly improved, but in the meantime, every effort is being made to care for the boy who wishes to pursue a course of instruction in agriculture.

A. M. SOULE,
Dean and Director.

Experiment Station, Blacksburg, Va.

THE LAND QUESTION IN VIRGINIA.

The State claims to be the owner—the original and ultimate owner—of all her lands. This ownership first appears in her land grants, and is now found in

the exercise of the right of eminent domain, of escheats and in the levying of taxes.

Claiming and exercising these original rights and sovereign powers, it is the duty of the State to grant good titles to her citizens and enable them to keep their titles good under the just administration of equitable laws.

This plain duty has never heretofore been performed by the State and the time has now come when she must meet her high obligation.

In 1900 there were 103,806 male citizens of the Commonwealth assessed for taxes on real estate, valued, in each instance, at not less than \$300.00. These citizens represent the thrift and intelligence of the Commonwealth, and their rights must be respected by our law makers.

The real estate of Virginia is assessed at 343 3-4 millions, or nearly three times as much as all the personal property returns for taxation in the State.

You can sell your personal property or borrow money on it quickly and at little expense. You do not have to employ a lawyer to examine the title to your horse or cow, to your oats and hay, nor to your stocks and bonds.

If you try to sell your land or borrow money on it, the first question is: Have you got a good title?

No will buy or lend you money without being satisfied about your title. It must be examined by a lawyer, and you have to pay the bill.

It does not matter how often the title has been examined before, it has to be re-examined every time a new deal is made.

The same old titles are guaranteed over and over again, and every time, you have to pay the bill.

A conservative estimate, based upon the returns from the County Clerks throughout the State, shows that the people of Virginia paid more than \$420,000.00 for abstracts of titles to lands in 1904.

This is nearly as much as was spent upon all the public schools in the 100 counties of our State, and more than half of what was spent for public education in every city and county of the Commonwealth.

This heavy and perpetual tax on the people will be saved by the Torrens System of Land Registration.

It is not only expensive, but it takes days and weeks to make an examination of the title, and so many difficulties are encountered that business men frequently have not the time to bother with transactions involving so many problems.

All this makes land hard and slow to handle, and men hesitate to bury capital in lands.

The Torrens System will make your lands merchantable. It will convert lands into a quick asset and render them available as a source of ready commercial credit.

It operates in the following manner:

1. A title is examined ONCE officially, and af-

firmed by order of Court. That ends the matter, and cuts out the endless examinations of titles now necessary. Your title is registered, and you have made a permanent improvement, which will last as long as the law prevails, and will never call for betterments or repairs.

2. You are then given a certificate of title, which guarantees to all the world that you have such title as is set forth therein to the lands therein described—for example, a life estate, or a fee simple, in whole or in part, free from encumbrances or subject to such encumbrances as are mentioned in the certificate.

3. You can deal with this certificate of title almost as freely as with a certificate of stock, because everybody can see from the certificate exactly what your title is.

This will put your real estate on a footing with your personality, and will add millions to the business capital of Virginia.

The Torrens Act will help the farmers and everybody who owns real estate in the country, as well as in the city.

It will kill the business of the land grabber in Virginia.

It will enable the State to collect her taxes promptly, and no man's land, when registered, can be sold for delinquent taxes without his knowledge.

It will help everybody who deals in real estate.

It will lessen the cost of transactions in real estate, stimulate and enlarge the market, and thus increase values; and when a poor man buys a home he will get a good title to it and no one can take it away from him.

It will promote development of the whole State by settling titles. And it will invite immigration, because strangers will not hesitate to buy such guaranteed titles.

The Torrens System is No Experiment.

It has been tested in South Australia since 1858, and soon spread to Queensland, Victoria, New South Wales, and West Australia. It has long been in operation in Tasmania, New Zealand, Vancouver, and British Columbia; also in Manitoba, Ontario, and the Northwest Territory of Canada, comprising the four provinces of Athabasca, Alberta, Assiniboia and Saskatchewan. Even conservative England has been testing it since 1862, and in 1900 Parliament appropriated \$1,325,000.00 for a Land Registry Office in Lincoln's-Inn-Fields. Registration of possessory titles has been compulsory in London since May 1, 1901. Nova Scotia has recently adopted the system; and a similar system of title registration has been in operation in Prussia since 1872. It has been proven to be suited to old as well as new countries, to monarchical as well as democratic institutions

to large and complicated holdings, to extensive estates and wild lands, as well as to small tracts and city lots.

The Torrens System has found congenial soil in the United States in Illinois, California, Massachusetts, Minnesota, Oregon and Colorado; and the Federal Government has established it in Hawaii and the Philippine Islands. In addition to this, Arkansas, the District of Columbia, Georgia, Iowa, Kentucky, Louisiana, Maine, Michigan, Mississippi, Missouri, Montana, Nebraska, New York, North Dakota, Pennsylvania, Porto Rico, Rhode Island, Tennessee, Texas, Utah, Washington, West Virginia, and Wisconsin have taken steps more or less pronounced for its adoption. The question is:

Shall Virginia keep up with the procession or, halt, lag behind?

If Virginia wishes to preserve an honorable place in the march of progress, she must do justice to her land owners. The spirit of our land laws is the spirit of mediæval oppression and restriction. We are living under a superannuated system, originated by Norman lawyers under William the Conqueror, and venerable only as a relic of an antique age. Feudal methods are not suited to this age. Laws made when lands were held under royal grants and sold for ten cents an acre are not suited to the business methods and commercial requirements of this day and generation.

See that your representatives in the House and Senate favor the Torrens Bill in the next General Assembly.

It is entirely voluntary, not compulsory. It simply gives you an opportunity to register your lands if you should see fit to do so.

It imposes no liability on the Commonwealth.

It will more than pay for itself.

There is no valid reason why any one should object.

Section 100 of our new Constitution especially authorizes the Legislature to adopt the Torrens System in Virginia.

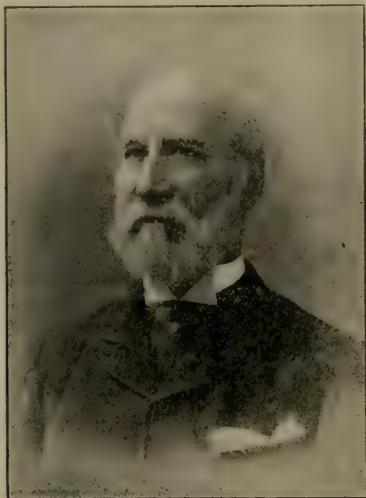
It has been approved by the Virginia State Bar Association, the Bar Association of the City of Richmond, the Virginia Banker's Association, the Virginia Board of Trade, the Virginia Real Estate Association and the Chamber of Commerce of the City of Richmond.

It is supported by the Times-Dispatch, the News-Leader, and the Evening Journal, of Richmond; the Landmark and the Virginian Pilot, of Norfolk; the Petersburg Index-Appeal, the Fredericksburg Star, the Charlottesville Daily Progress, the Staunton Railway News, the Harrisonburg Spirit of the Valley, the Virginia Law Register, and other influential papers throughout the State, including the Southern Planter.

EUGENE C. MASSIE.

IN MEMORIAM.

We regret to announce the death of Mr. T. W. Wood, the head of the well-known firm of Seedsmen, (T. W. Wood & Sons) of this city. Mr Wood was born in Derby, England, January, 1840, and died at his residence near this city November 12 1905. In 1873, Mr. Wood came to Virginia and located near Richmond, and engaged in farming. After several years, he decided to engage in the seed trade, in



which he had had previous experience in England. He associated his sons with him in the business and by their united efforts, success was ensured, and the business is now one of the largest in this country. Mr. Wood was of untiring energy and perseverance, and after he had succeeded in placing his seed trade on a firm foundation, he embarked in the agricultural implement trade, becoming president of, and the largest stockholder in, The Implement Co. of this city, which concern has now a large and constantly growing business throughout the South. Mr. Wood continued his association with both these concerns up to the time of his death and kept in close touch with the agricultural and horticultural interests of the South. He was honored by his business associates, with the Presidency of the Richmond Grain and Cotton Exchange, and was also at one time President of the American Seed Trade Association. He took much interest in several of the charitable institutions of this city, and his liberal help and friendly counsel will be much missed by the Virginia Home for Incurables, and the Sheltering Arms Hospital. He was of a kindly and charitable disposition and out-

spoken in his views on all public matters, when he thought good could be done by such a course. He leaves behind him three sons and a daughter. Two of his sons are engaged in the seed business, which he founded here. The other son is in the seed business in Louisville, Ky. His daughter is the wife of Dr. Stuart McLain of this city. At one time Mr. Wood was for a short time associated with Mr. Jackson in the publication of this Journal, and the writer of this notice desires to place on record his kindly feelings toward him and his obligations to him for many kindnesses done.

BASIC SLAG MEAL.

Editor Southern Planter

In view of the fact that there is a possibility that the tariff may be revised in the near future, permit me to call attention to the fact that basic slag meal, which is a most valuable and important source of phosphoric acid for a large proportion of the soil of this country, is now subject to a duty of \$1 per ton. So far as I am aware, this is the first case where a duty has been placed upon a substance which is used for manurial purposes. In this instance the duty was falsely levied by virtue of basic slag meal having been wrongly classified as an iron ore. It is in no sense an iron ore, but, on the contrary, it is a by-product produced in the manufacture of Bessemer steel from iron phosphate. It is an imposition upon the farmers of this country that a duty was levied upon this material and the blame is probably to be laid at the doors of the steel trust. Whether the manufacturers of ready mixed commercial fertilizers were in any way to blame, I cannot say, though I very much doubt it.

Steps are being taken to have this matter brought to the attention of the National Grange for he second time, and it is my hope that you will enter upon an immediate campaign, using every possible means to have this undesirable duty removed.

H. J. WHEELER.

We are in entire agreement with this suggestion and urge that our readers call the attention of their Senators and Representatives to the matter. It is bad enough for farmers to be taxed by the tariff indirectly on goods they purchase, but that they should be taxed directly on the fertilizer they use is an abominable shame.—Ed.

Fill the ice house at the first opportunity and see that it is packed in closely and well surrounded and covered with saw dust and straw packed closely to exclude the air. Also see that there is good ventilation over the top of the ice and good drainage from the bottom.

THE Southern Planter

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B. MORGAN SHEPHERD,
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CHICAGO, ILL.

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REMITTANCES should be made direct to this office, either by Registered Letter or Money Order, which will be at our risk. When made otherwise we cannot be responsible.

WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. Criticisms of Articles, Suggestions how to improve THE SOUTHERN PLANTER, Descriptions of New Grains, Roots, or Vegetables not generally known, Particulars of Experiments tried, or Improved Methods of Cultivation are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.

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Phillis, Va., Oct. 26, 1905.

I cannot do without the Southern Planter. Every farmer ought to read it.

J. A. BUGG.

PUBLISHER'S NOTES.

To Advertisers.

Be sure to send in your copy or instructions on or before the 25th of the month for the following month's issue. This is imperative.

OUR JANUARY ISSUE.

In sending out the first number of THE PLANTER for the 67th year of its publication, we desire to tender to our subscribers and advertisers, our thanks for the liberal patronage which they have accorded us in the past and to assure them that it will be our aim and pleasure to do every thing possible in the future to merit a continuance of the same. The addition to our subscription list during the past year has been large and the monthly edition is now so large that we are compelled to go earlier to press, in order to ensure mailing by the 1st of the month. We would ask correspondents and advertisers, therefore to oblige us by sending in their communications and copy not later than the 20th of the month, or we cannot guarantee insertion in the following issue. We have printed a large number of copies of this issue in excess of those called for by our subscription list in order to be enabled to start new subscribers with the January issue. This we will do, so long as the supply lasts, but would advise early subscription, to make certain that a copy of this number be received.

An illustrated article by Charles de Kay, in the December Review of Reviews, attempts an answer to the question, "What Do Our Church Buildings Express?"

WOOD'S SEED BOOK FOR 1906

is one of the handsomest and most valuable publications of the kind issued. The useful and practical hints contained in the annual issues of Wood's Seed Book make it a most valuable help to all Farmers and Gardeners, and it has long been recognized as an up-to-date authority on all

Garden and Farm Seeds,

particularly for southern planting.

Wood's Seed Book mailed free to farmers and gardeners upon request. Write for it.

T. W. WOOD & SONS,

Seedsman.

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Truckers requiring large quantities of Seed Potatoes, Early Peas, Snap Beans or other Vegetable Seeds are requested to write for special prices.

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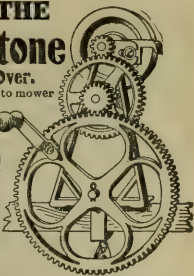
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3,000 revolutions of carbonium wheel per minute. Grate and abrasive known. No pressure needed, does not draw temper or heat tools. Every home need it. Write for price and circular. A few good agents wanted.

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Main and Tenth Streets.

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No charge if returned. The leader for 30 years. One hopper for ear corn, another for small grain; perfect mixture; more grinding for power used than any other. Eight sizes, 1 to 20 h. p. Reduced in price this year. Freight paid everywhere. Send for free 30th Annual Catalog.

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NEW HOLLAND FEED MILL.

Noted for fast grinding, easy running, durability and wide range of work. Ear corn and small grain feed mixtures, coarse or fine, table meal, etc. Mills in different styles and sizes, with or without elevator or bagger. Let us send you one on free trial. No obligation to buy and no expense if you don't like it. Catalog free.

Write for booklet on our fast cutting Wood Saws, the best made.

New Holland Mach. Co.,
Box 151, New Holland, Pa.

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I will send any reasonable farmer one of

DITTO'S

Latest Double Cut,
Triple-Geared
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On Ten Days Trial—No Money In Advance.

It does not grind at least 25% more ear corn or other grain than any other two horse exception made, and it lacks at no expense. Don't miss this offer. Ball-bearing throughout, only 100 sweeps. Light draft. Grindings never touch each other. They beat for years. Both grinders reversible, self-feeding. Ask for new Catalogue.

G. M. Ditto, Box 4R Joliet, Ill.

STOMACH WORM OF SHEEP.

This parasite, technically known as the *Strongylus contortus*, is such a serious obstacle to successful sheep raising that a method of prevention and treatment which may be successfully used by the farmer is almost essential to the continuance of the sheep industry in some sections of the country. Mr. Joseph E. Wing, in the *Breeders' Gazette*, tells of a breeder who insists that the proper treatment of the mothers of the lambs early in the season adds 20 pounds to the weight of his lambs and almost entirely prevents loss from this cause. He alternates the gasoline and coal-tar creosote treatments as follows: After withholding food for 16 hours, the gasoline is given, and an hour later the animals are fed. Twenty-four hours afterward they receive the coal-tar creosote. An interval of 12 hours is allowed, when the sheep are again fasted and the treatment repeated as before. The animals are then put upon fields which are unfested—that is, where no sheep have been for some time, and fed nourishing food. The plan of treating the ewes some time before lambing, if infested with these worms appears to be a most excellent one; but the writer would prefer to treat with coal-tar creosote alone or with the addition of thymol, giving two treatments, with an interval of two or three days between them. To give four treatments so close together as is indicated in the case mentioned by Mr. Wing appears unnecessarily severe on the ewes, and would probably be less effective than two treatments with the creosote or creosote and thymol. Putting the animals on pastures where no sheep have been for a year and feeding well are important parts of the treatment.—D. E. Salmon.

COAL-TAR CREOSOTE.

The remedy which has been found most effective and satisfactory for the treatment of sheep affected with stomach worms is coal-tar creosote. This is made into a one per cent. solution by mixing one ounce of the creosote with 99 ounces of water. The dose of this solution is one to three ounces for lambs, and three to five ounces for adult sheep, according to the size of the animal. It is very destructive to stomach worms, and by repeating the dose after two or three days have elapsed, the sheep should be quite thoroughly freed from these parasites. The creosote solution is soon diluted, however, by the liquids of the stomach and intestines, and is also readily absorbed; consequently it may not reach all parts of the intestines in sufficient strength to destroy the worms which inhabit those organs. For this reason, when the presence of intestinal worms is known or suspected, it is best to add powdered thymol to the creosote solution after the

Sharples TUBULAR CREAM SEPARATORS

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THE SHARPLES SEPARATOR CO.
WEST CHESTER, PA.
TORONTO, CAN. CHICAGO, ILL.

The Dairy Problem Solved, and Solved Rightly.

Since man first began to milk cows, the problem of how to make the most dollars from them has been the same. After centuries of experiment the way has been discovered.



An Easy Running Empire Cream Separator

will get these dollars for the cow-owner, and will get them all. This is no experiment, it is an actual fact proven by years of experience by farmers the country over.

You want to know why; we want to tell you why. Write, and get our free books on dairying. Read these; then investigate the Empire. The result can only be one thing, a complete proof that our statements are true.

Empire Cream Separator Co., Bloomfield, N. J.
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Grid anything and save enough in tolls to use some to pay for

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Simple and geared sweeps and belt powers. 30 years the leading feed grinder. A guarantee that makes you sure. Write for booklet. THE STAR MFG. CO., 95 Depot St., New Lexington, O.



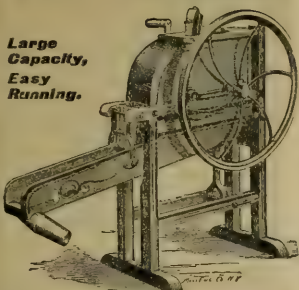
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Death-to-life—The kind that successful poultrymen have used for 25 years. Kills lice wherever you find them for active hens. Never disappoints. Was once sold in a box for 25¢. O. K. STOCK FOOD CO., 451 Mason Building, CHICAGO.

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Corn Shellers

Large
Capacity,
Easy
Running.



We make all sizes in both hand and power shellers. Write for free Sheller Catalogue.
Keystone Farm Machine Co. York, Pa.



Black Hawk GRIST MILL

A hand mill for country, village and city house-keepers. Grinds corn meal, graham, rye flour, etc. Fast, easy grinder made to last.

Weight 17 lbs. **\$3.00. EXPRESS PAID.**

Soon pays for itself. You'll find a dozen uses for it. Grinds corn, wheat, rye, rice, spices, coffee, etc. fine or coarse. Just the thing for cracking grain for poultry.

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Mfr. of Hand Mills and Corn Shellers
exclusively. **Asus Vance,**
Clarksville, Tennessee.

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(The largest in the world.) N. C. Dunlap, Manager, has made an address on Alfalfa and a copy will be sent free to farmers. Write Goodell Company, 63 Main Street, Antrim, N. H.



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Write for prices.

RICHMOND BAG COMPANY, Richmond, Va.

proper dose of the latter has been measured out. The dose of the thymol is 30 grains for a lamb and 50 to 75 grains for older sheep. Thymol is not very soluble, and for that reason passes through the stomach and into the intestines without being absorbed. It is therefore considered to be a remedy especially adapted for intestinal worms. By combining the coal-tar creosote and thymol, we have a mixture which may be relied upon to destroy the round worms of both the stomach and the intestines, with the exception of those worms which are living within the walls of these organs and which no medicine will reach. Gasoline has been used by many in treating sheep and lambs for stomach worms, but appears to be less effective and not as safe as the remedies mentioned above. The dose for lambs is two teaspoonfuls, and should be given mixed with sweet milk. The gasoline and milk should be mixed in the drenching bottle for only one animal at a time, and should be given at once, as otherwise, on account of its volatile nature, a considerable portion of the gasoline might escape. After treatment, the sheep and lambs should be placed on ground which is not infected with the eggs or embryos of these worms—that is, on ground where sheep have not run for one or two years. If placed on infected pastures, they will pick up young worms with the grass, and soon be in as bad a condition as they were before the treatment. By properly carrying out these directions, it should be possible to raise lambs anywhere without serious losses from stomach or intestinal worms.—D. E. Salmon, in Country Gentleman.

POINTS ON INCUBATORS.

Dr. Richard M. Wood has prepared a bulletin for the Department of Agriculture, Washington, D. C., on "Incubation and Incubators." The summary of his instructions is given below, and the bulletin may be had on application to the Department: Study your incubator.

Acquaint yourself with all its parts. Read the manufacturer's directions for setting it up.

Set it up carefully and according to instructions.

Never try to run an incubator in a drafty place, nor near a stove, nor where the sun shines upon it.

Set fertile eggs only. Waste no effort upon those that are doubtful.

Learn how to trim and clean a lamp.

Keep the lamps full and the wick and tube clean.

Avoid smoke.

See that the eggs are clean and dry before setting them.

Balance all eggs, large end up, a few hours before placing them in the tray.

Do not overfill the tray.

Turn every egg the third day.

Let Us Send You Our Book.

about good wheels and good wagons that will save you a lot of work and make you a lot of money—the

ELECTRIC STEEL WHEELS and the ELECTRIC HANDY WAGON.

By every test, they are the best. More than one and a quarter millions sold. Spokes suited to the hub. Can't work loose. A set of our wheels will make your old wagon new. Catalogue free.

ELECTRIC WHEEL CO., Box 146, Quincy, Ills.



ELECTRIC

30 Days Free Trial 2 Years Guarantee SPLIT HICKORY SPECIAL

It's karats fine. Best bargain in the world. Made to your order. Guaranteed direct from our factory to you. Try before you buy. Write and tell us what style of vehicle you need. Free 1906 Catalogue, 150 pages—now ready.

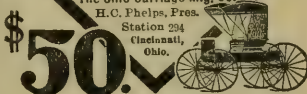
The Ohio Carriage Mfg. Co.

H. O. Phelps, Pres.

Station 234

Cincinnati,

Ohio.



WE'LL PAY THE FREIGHT
and send 4 Heavy Wheels, Steel Tire on — \$7.75.
With Rubber Tires, \$14.50. 1 inf. wheel to 1000 lbs. tread. Two Buggies, \$25.75. Sleighs, \$10.75. Write for catalogue. Learn how to buy direct. Repair Wheels \$4.00. Wagon Umbrella FREE. **V. BOOB, Cincinnati, O.**

HENCH'S 20th Century Steel Ball Coupling Cultivator

With Double Row Corn Planter and Fertilizer Attachment Complete on One Machine.



Parallel beam movement, pivoted axle with lateral beam movement in connection with the universal joint, or either independent of each other. Centre level for spreading and closing shovel gangs. The most powerful cultivator on the market, having every possible movement of the shovel gangs.

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Built for Business

Farquhar engines and rollers are built for hard knocks and durability on the road as well as at work. They have every improvement that experience has shown to be of value. For general all-round service



FARQUHAR ENGINES

and SAW MILLS

have no superior.

A. B. FARQUHAR

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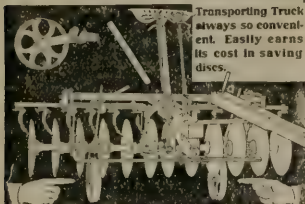
York, Pa.

Stop! Think!!

Don't buy a Disc Harrow without a

TRANSPORTING TRUCK

Price \$4 At Your Dealer's Store.



Transporting Truck always so convenient. Easily earns its cost in saving discs.

Prevents all dulling or breakage in transporting from field to field or upon the road. Saves time and labor of loading upon a wagon. Every farmer should have it because every farmer needs it. Write today for Free Circular, D. T.

FETZER & COMPANY,

Established 1853

Box 15,

Middletown, Ohio.

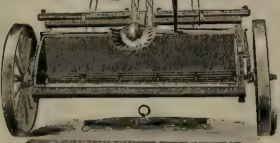
Fertilizer Drill

Handles All Commercial Fertilizers

wet or dry, coarse or fine. Positive feed, no choking, no skips.

PERFECT Lime Sower

For Broadcast Top-dressing or Drilling in Rows. Spreads to width of 9 ft. 10 inches, 300 to 400 lbs. per acre.



LOW AND EASY TO LOAD.

Broad tires, no rutting. Quick changes from drilling to broadcasting, also for thick and thin spreading. Furnished with shafts or tongue. Write for descriptive circular and testimonials.

Special Large Size, Sows 8 Feet 3 inches Wide.

Belcher & Taylor A. T. Co.,

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HORNS ARE DANGEROUS

Horns cause considerable loss. You can stop the loss quickly, easily, painlessly. Use the KEYSTONE DEHORNER and perform the operation in an instant. Does not splinter horn or tear flesh. A humane, money-saving method. Write for free coloring booklet.

Box 45

Pomeroy, Pa.



OPIUM

and Whiskey Habit cured at home without pain. Book of particulars sent FREE. R. M. Woolley, R. D., Atlanta, Ga., 103 N. Pryor St.

Cool the eggs every morning. Be sure your hands are clean when handling eggs.

Test all eggs by the seventh day. Test again by the eleventh day. Test again by the fifteenth day.

If the air space is too large, supply moisture; if too small, put a saucer of dry lime in the room and run without moisture a day or two.

Do not expect to learn all about the air cell the first hatch. You will learn that later.

Do not disturb the eggs after the evening of the eighteenth day.

Have a regular hour for incubator work.

Do not tinker too much with the regulator.

Get the adjustment right and keep it so.

Heat your machine and make your adjustment before placing the eggs in the egg chamber.

FARMER'S TOAST.

Harper's Weekly suggests that in these days of agricultural prosperity we should not forget the fine old farmer's toast not uncommonly found on English drinking vessels in former times. It goes as follows:

"Let the wealthy and great

Roll in splendor and state.

I envy them not, I declare it.

I eat my own lamb,

My chickens and ham,

I shear my own fleece and I wear it.

I have lawns, I have bowers,

I have fruits, I have flowers,

The lark is my morning alarmer;

So my jolly boys now

Here's God speed the plow.

Long life and success to the farmer."

The young man on the farm who is tempted to go to the town or city, giving up a substantial certainty for doubtful prospects, would do well to consider the truth expressed in these lines. The farmer's life is the most independent, and is beset with less temptations than any other. It is the nearest to nature and the farthest away from the degenerating artificialities of the modern world.

It is because of this artificiality and its false standards that the ten-dollar-a-week clerk, who may be fired any day and not be able to pay his laundry bill, is led to consider himself superior of the strong, sun-browned harvester who gathers his own crops on his own land.

There are higher prizes than those that are won by the successful farmer, but those higher prizes are too often secured in part through a moral compromise and a sacrifice of self-respect which the farmer is never called upon to make.

The Review of Reviews for December gives a nation-wide survey or the recent elections, with valuable editorial comment on the results in New York, Philadelphia, Maryland, Ohio, San Francisco, and elsewhere.

No Combines or Trusts in CUTAWAYS.



Clark's Rev. Bush Plow and Harrow cuts a track 5 ft. wide, 1 ft. deep. Connects the subsoil water. It is an excellent machine for covering in sugar cane. Strength guaranteed.

Can plow a new row out of a great stump, bush, or bog land, leaves land true, clean for any crop.

Clark's Double Action Cutaway harrow moves 15,000 tons of earth in a day.

Send for Circulars.



Clark's Rev. Sulky Disc Plow



Made single or double. One or two furrows five to ten inches deep; 14 inches wide. For two or four horses. Light draft. No slide draft. No similar

plow made. When Clark's grass tools are used, directed in his grass culture, we, the C. H. Co., guarantee them to kill wild mustard, grass, hard hack, sunflower, milk weed, morning glory, Russian thistle or any other foul plant that grows, or money refunded. Now is the time to commence work for next year's seedling to grass.

THE CUTAWAY HARROW CO.,

Higginson, Ct., U. S. A.

NEW HOLLAND WOOD SAW

Great thing for home work, a money maker for jobbers. Very speedy and durable. Saws wood, poles, posts, ribs, boards, pales, lath, etc. Three sizes. We make several styles and sizes Feed Mills. Write for free booklet.



New Holland Mach. Co., Box 153, New Holland, Pa.

9 CORDS IN 10 HOURS



BY ONE MAN. IT'S KING OF THE WOODS. Saves money and backache. Send for FREE illus. catalogue showing latest improvements and testimonials from thousands. First order gets special discount. Folding Sawing Mach. Co., 158 E. Harrison St., Chicago, Ill.

Well Drills

For Horse, Steam or Gasoline Power



Well Augers

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ARTESIAN WELL Contractors.

DEEP WELL DRILLING a specialty. Estimates made free of charge in all localities. If you want any work done write M. R. SCHALL, Mcleban, Va.

\$96/MONTH salary for a man with rig to introduce our Ropes, Stock and Poultry Feed. This Co. means business and can furnish best references. Send for Contract. Dept. A7, ROYAL CO-OP. MFG. CO., Indianapolis, Ind.

PLANT CORN

Peas, Beans, Beets,
Buckwheat, etc.



Plant and Fertilize at same time.

"KING CORN FIELD"

OF THE

marks out rows and plants in drills or hills 4, 9, 12, 18, 24, 36 or 72 inches apart. Corn and any other seed set, dry, lumpy, etc., 25 to 700 lbs. per acre. A great labor and time saver. Built to last. Full guarantee. Agents wanted. Send for Catalog.

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Box 25, Chippewa Falls, Mass.

Get the Best

A Good Spray Pump earns big profits and lasts for years.

THE ECLIPSE

is a good pump. As practical fruit growers were using the common sprayers in their own orchards found their defects and then invented The Eclipse. Its success practically forced us into manufacturing on a large scale. You take no chances. We have done all the experimenting.

Large fully illustrated Catalogue and Treatise on Spraying—FREE

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Defender Sprayer

All brass, easiest working, most powerful, automatic mixer, expansion valves, double strainer. Catalogue of Pumps and Treatise on Spraying free. AGENTS WANTED.

J. F. Gaylord, Box 22, Casskill, N. Y.

The "Kant-Klog" Sprayer

Something New. Gets twice results with same labor and cost. All sizes. Floor round spray from a nozzle. Write-to-day. A Wooden Pump made of iron. Just a handle to remove rubber-leather. Stock made of steel, brass adjustable, brass drain cock prevents freezing. Or a brass. All repairs done above ground.

Rochester Spray Pump Co., 21 East Ave., Rochester, N. Y.

This "Williams" Pump FREE.

To introduce our patented pumps in every county, we will send one pump FREE to the first to write accepting our special offer. Write-to-day. A Wooden Pump made of iron. Just a handle to remove rubber-leather. Stock made of steel, brass adjustable, brass drain cock prevents freezing. Or a brass. All repairs done above ground.

"Williams" Pump 467 Harmon St., Indianapolis, Ind.



Krauser's Liquid Extract of Smoke

Smokes meat perfectly in a few hours. Made from hickory wood. Delicious flavor. Clearer, cleaner, no smokehouse needed. Send for circular.

E. KRAUSER & CO.

SOME REASONS WHY YOU SHOULD ATTEND. THE FARMER'S INSTITUTE.

You should come to the farmers' institute because it is your meeting and your presence will help to make it a success. If you are not on the program or do not take part in the discussion of the subjects, attentive interested listeners are just as essential as any other feature. Speakers cannot talk with interest and enthusiasm to empty seats.

Some people never help with anything for the public without they see a penny in it and they will not come. You are not one of them.

You may learn something that you do not know. There are a very few smart people that think they know all about farming. But you are not one of them. (They have gone to New York and Pennsylvania to do institute work this winter.)

You may learn a more economical way of doing things on the farm and make more profit from your labor. I have known many farmers that had all the money they needed, but they have gone to glory and are walking the gold-paved streets of the new Jerusalem. So you are not one of them.

You may learn an easier way of doing things on the farm. Some people raise large crops in their imagination in the winter but loaf and talk political economy in the summer. But they have gone to the poorhouse or sucking the government teat. So you are not one of them.

You may tell some one how you raise the finest corn, wheat, fruit or stock at our agricultural fair, and you may not win first premium. But do not stay from the institute on that account. People that have "better at home" than they see at the fair never attend farmers' institutes or make exhibits at the fair. We have a few people of that kind but you are not one of them.

You should bring your wife to every session. She may learn to make your home more pleasant and attractive and get acquainted with Mr. Smith's wife who is noted as the best housekeeper in the neighborhood and get an invitation to come over and spend the day and bring you along. Visiting and company are too much bother and expense. Just say hello over the phone. Your wife will not need a new dress for that kind of visiting, and the old buggy will do for you to drive over and see what Mr. Smith will take for a purebred calf. We have a few men of this kind but you are not one of them.

Let your daughters come. They may get acquainted with an up-to-date farmer's son that always attends farmers' institutes for the purpose of hunting up the most attractive lassie in the world for his wife. I know

RIDE ON RUBBER

GENUINE

Split Hickory


Top buggy guaranteed solid rubber tires. Everything of the best. 30 days free trial. 2 years direct factory-to-you guarantee. Worth double the price. Write and tell us what style vehicle you will buy. Free 1906 Catalogue, 100 pages, 100 styles—now ready.

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How to Organize

A Farmers' Telephone Co.



We have published a very instructive telephone book especially for the man who wants to know ALL about telephone matters. It tells how to organize, how to build the lines; about different types of phones; construction; gives by-laws, and constitutions; in fact it is a telephone encyclopedia every farmer should have. We send it free if you mention this notice. Ask for Book 1130, "How the Telephone Helps the Farmer." You will get it by return mail. Address nearest office: **Stromberg-Carlson Tel. Mfg. Co. Rochester, N. Y.—Chicago, Ill.**

Farm Phones

Have a telephone service of your own. Cost of instruments small compared to convenience and time and money saved.

AGENTS WANTED

Write for free book containing cost and how to organize, build and operate telephone systems among your neighbors. **Cadiz Electric Co. 55 C. C. Building, Cadiz, O.**

FARM TELEPHONES

BOOK FREE How to put them up—what they cost—why they save you money—all information and valuable book free. Write to **J. Andrae & Sons, 934 W. Water St., Milwaukee, Wis.**

BOILERS-ENGINES

new and second hand, from 2 to 100 H. P. TRACTION ENGINES, \$225.00 each; 6 H. P. Vertical Engine and boiler, \$110.00; 8 H. P. Vertical Boiler and engine, \$160.00; 12 H. P. Vertical Boiler and engine, \$180.00; 22 H. P. Corn Burrs, \$50.00; Corn crushers from \$10.00 to \$50.00; Gas and Gasoline Engines all sizes, new and second hand boilers from 2 to 100 H. P. New boilers of every description made to order **CASEY MCH. CO., Springfield, Ohio.**



A COMPOST DRILL

That will thoroughly pulverize and evenly distribute from 100 to 1000 pounds to ten tons per acre made in two sizes by **J. M. LINDSEY, Crystal Springs, Ga.**

THE CAROLINA COOK STOVE



GUARANTEE IN EVERY PARTICULAR. SOLD DIRECT TO CONSUMER AT WHOLESALE PRICES, IN COMMUNITIES WHERE WE HAVE NO AGENT. These stoves are heavy weight, have large roomy Ovens, and all modern improvements. Made only of the very best materials.

Will be glad to quote extremely low prices. DELIVERED AT YOUR RAILROAD STATION.

G. T. GLASCOCK & SONS, MANUFACTURERS,
GREENSBORO, N. C.

HERCULES Stump Puller



Clears an acre of heavy timber land each day. Clears all stumps in a circle of 154 feet without moving or changing machine. Strongest, most rapid working and best made.
HERCULES MFG. CO.,
413 17th St., Centerville, Iowa.



The Monarch Stump Puller.

The best on earth. you make no mistake in buying of a man of 6 years' experience in pulling stumps. We set up the puller and guarantee satisfaction before we want your money. 5 sizes

Write for catalogue and prices.
JOS. W. RITCHIE, Sole Agent, R. F. D. No. 39, Grouton, Va.



SUPERIOR STONE POST

No more rotten fence posts. Just the thing that meets the present demand. Cheap, strong, durable. Easily made at home or in a large way. Sand, gravel, cement and carbon looped rods as reinforcement. Great and country rights for sale. Agents wanted. Excellent profit. Write.

B. F. STULTZ, Elkhart, Indiana.

some farmers' girls that are so disgusted with farm life that they would rather go to the town or city and work in a store or factory than be the wife of any farmer. But you are not one of them.

Bring your whole family and lunch to the morning sessions and stay all day. Have a mid-winter social and picnic and a good time between the sessions. You will all have a jolly good time and a two-days' outing that will help break the monotony of the long winter. I know some families that stay at home all the time. Never go to a picnic or social gathering where the whole family can go together and spend the day. The young folks from such families have gone to the cities to live. You are not one of them.—J. T. Dew, Sec'y Summerfield O., Institute.

IF YOU WANT TO READ SOMETHING GOOD!

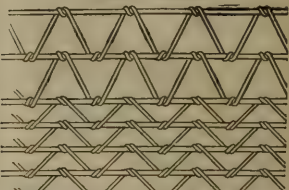
A distinct Christmas flavor found in Lippincott's Magazine for December, adds to the general interest which is never lacking. This is a season of happiness and Lippincott's is happy too. Jolliness, humor, and pathos are there, but the deeper tragedies of life have no place in this issue.

The opening novelette, "Of the Lion's Breed," is by Grace MacGowan Cooke in collaboration with Vond Reed; and it is good enough to indicate the quality of the seven shorter stories which follow. It is a picturesque romance of the coal fields, strongly dramatic, yet treated with the utmost simplicity.

"Josiah Allen's wife" calls her amusing contribution "The Last Straw." This may prove illuminative to husbands. Mrs. I. Zangwill, who still writes under her maiden name, E. Ayton, is the author of "Don Cupid," a sweet child sketch with a grown-up love interest. An automobile racing story by Ralph Henry Barbour, called "Victory With Honor," abounds in humorous situations and lively dialogue. "A Studio Mouse," is a clever tale of artistic life among the "cliff dwellers." In it the Mouse (George Knox) describes a courtship which threatens to cut off its source of supplies. Seumas MacManus, the Irish humorist, tells "How Condy Dhu Raised the Devil," and makes it superlatively funny. Ella Middleton Tybout's story, "A Moment of Confidence," shows two pictures of the fireside,—which cynics try to make us believe is obsolete,—very real human pictures, complete in contrast. "The Wildwood Limited" is a story of a locomotive engineer, by Cy Warman, whose name in the line he has chosen has few equals. This tale will be especially enjoyed by railroad men.

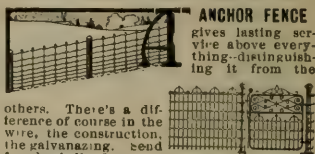
Marion Harland once spent Christmas in Beth-lehem of Judea. She describes the Christmas ceremonies in the Church, which is built on the

THE FIRST Hartman Stockade Woven Wire Fence



Ever built was erected 17 years ago and is still in use as durable and strong as when first put up. The Hartman is a perfectly woven wire fence that is strong enough to keep in the maddest bull and fine enough to keep out the chickens. It is made of the best quality galvanized steel wire and contains much more material than other fences more cheaply constructed. That's why it lasts so long. If your dealer doesn't handle it, write for catalogue and prices. Address

GLEN MFG. CO., 103 Mill St., Ellwood City, Pa.
Also Mfrs. Hartman Steel Picket Fence, Hartman Flexible Wire Mats and Glen Steel Mat.



ANCHOR FENCE
gives lasting service above everything distinguishing it from the

others. There's a difference of course in the wire, the construction, the galvanizing. Send free book No. 8.

Anchor Fence & P't'g Co., Cleveland, Ohio.



What are your fence plans?

It will pay you to put up the Genuine Jones' fence. The wire is carefully selected, the laterals are heavy coiled spring wire, the uprights are hard and springy. Write for catalog No. 8 today.

International Fence Co.

98 Rutledge Av., Columbus, O.



LAWN FENCE

Many designs. Cheap as wood. 32 page Catalogue free. Special Prices to Gentlemen and Churches. Address
COILED SPRING FENCE CO.,
Box Q, Winchester, Ind.



Wire Fence 29c

48-in. stock fence per rod only. Best high carbon coiled steel spring wire. Catalogue of fences, tools and supplies FREE. The wire is made here. Write today.

MASON FENCE CO. Box No. 1, Leeburg, O.



FENCE STRONGEST MADE.

en-tight. Sold to the Farmer at Wholesale Price. Fully warranted. Catalogue free. COILED SPRING FENCE CO. Box B2 Winchester Indiana.

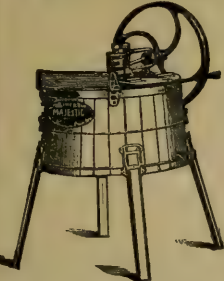


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THE BEST WASHING MACHINE ON EARTH

Made on scientific principles, it saves TIME, as well as CLOTHES.

Made by the largest woodenware manufacturers in the world, we can afford to make the best Washers, CHEAPER THAN OTHERS.

Send for illustrated catalogue, it will please you.
Send for the machine itself, it will satisfy you.

MADE AND GUARANTEED BY

The Richmond Cedar Works.

Richmond, Va.

SAN JOSE SCALE

and other INSECTS killed by

GOOD'S

Caustic Potash Whale-Oil Soap No. 3

Endorsed by U. S. Dept. of Agri. and State Experiment Stations. This Soap is a fertilizer as well as an insecticide. 50-lb. kegs, \$2.50; 100-lb. kegs, \$4.50; half barrels, \$7.00; 3-lb. per lb.; barrel, 42-lb., 3-lb. Send for booklet.

JAMES GOOD, Original Maker.

989-41 N. Front Street, Philadelphia, Pa.

FUMA

kills Prairie Dogs, Woodchucks, Gophers, and Grain Insects.

"The wheels of the Gods grind slow but exceedingly small." So the weevil, but you can stop their grind with

Fuma Carbon Bisulphide as others are doing.

EDWARD R. TAYLOR, Penn Yan, N. Y.

Save The Posts

Old field pine made to last longer than cedar or locust by creosoting with dead oil of coal tar. The creosoting of lumber makes it practically indestructible, stops all rot and is absolute death to all insects. Write for prices to the NORFOLK CREOSOTING CO. Norfolk, Va."

FRAZER

Axle Grease

Best in the world.

Its wearing qualities are unsurpassed. It actually outlasts 3 boxes any other brand. Not affected by heat. Get the genuine FOR SALE BY ALL DEALERS.

Mention THE SOUTHERN PLANTER in writing.

site of the Manger where Christ was born, and gives much interesting news of the town, in her paper in the Christmas Lippincott's.

A paper on "The Modern Lyceum," by Paul M. Pearson, supplies up-to-date information on this live subject; and Wimer Bedford, a Veteran, writes an anecdotic article on "Some Generals of the Civil War." This will be followed by a second paper of further reminiscences.

Christmas poems by Charles Hanson Towne and Clinton Scollard mark the glad season.

"Walnuts and Wine" have caught the prevailing happiness and reflect its spirit in joke and verselet.

MAGAZINES.

Notably rich in color is the Christmas "Century"; its many pages in color and tint and its store of Christmas story and verse making it a handsome gift book in itself.

Pre-eminent among the fiction of the month, of course, is the continuation of Mrs. Humphrey Ward's "Fenwick's Career," the new chapters carrying the young Westmoreland painter into London into a world of thought and of people altogether new to him. There are Christmas stories by Elizabeth Foote, "The Rough Places," by Lawrence Mott, "Jean Baptiste's Christmas Present," by Myra Kelly, "Star of Bethlehem," by Jacob Riis.

Nor is the number lacking in more serious offerings—"An Intimate Study of the Pelican," by Frank M. Chapman; further chapters of Camille Gronkowski's "Historic Palaces of Paris" and Catharine A. Carl's "In the Court of the Empress Dowager."

The December St. Nicholas is rich in Christmas cheer, pretty verse, absorbing stories and jolly pictures—a gift-book which should crown every stocking and tree in the land next month. Besides the second instalment of the new serials, Miss Helen Nicolay's "The Boy Life of Lincoln," Captain Harold Hammond's "Pinky Perkins: Just a Boy," Ralph Henry Barbour's "The Crimson Sweater," and Agnes McClelland Daulton's "From Sioux to Susan," there is a store of short stories: E. Vinton Blake's "A Mislaid Uncle" and "A Snowbound Santa Claus," by Izola L. Forrester, both tales of the Christmastide; "The Grand Circuit," the adventure of a man, a bear and an electric light wire told by Frank Lillie Pollock, and "On the Rigi," a delightful story of two boys worth knowing, by Rebecca Harding Davis.

Grownups as well as the girls and boys should read with interest Maurice Francis Egan's sketch of "The President and the Boys," an article that comes from one who knows the President intimately and who is a frequent guest at the White House. It tells about one special boy who called

AS20 Watch for \$5.45



These figures tell exactly what we are doing, selling a \$20.00 watch for \$5.45. We don't claim that this is a \$20.00 watch or a \$20.00 watch, but it is a \$20.00 watch. A leading watch manufacturer, being laid pressed for ready cash, recently sold us 10,000 watches—watches actually 1.00 to retail at \$20.00. There is no doubt that we could wholesale them to dealers for \$12.00 or \$15.00, but this would involve a great amount of labor, more than in selling the watch direct to the consumer at \$5.45. The Evington Watch, which we offer at \$5.45 to an individual, is a 21 jeweled, finely balanced and perfectly adjusted movement. It is specially regulated, jewels, dust band, patent regulator, enameled dial, jeweled compensation balance, double hunting case, genuine gold-filled and handsomely engraved. Each watch is thoroughly timed, tested and regulated, before leaving the factory and both the case and movement are guaranteed for 25 years.

Clip out this advertisement and mail it to us today with your name, postoffice address and nearest express office. Tell us whether you want a lady's or a man's watch and we will send the watch to your express office at once. If it satisfies you, after a careful examination, pay the express agent \$5.45 and express charges and the watch is yours, but if it doesn't please you return it to us at our expense.

A 25-Year Guarantee will be placed in the front case of the watch we send you and to the first 10,000 customers we will send a beautiful gold-filled watch chain, free. We refer to the First National Bank of Chicago, Capital Stock, \$1,000,000.

NATIONAL CONSOLIDATED WATCH CO.

Dept. 259, CHICAGO

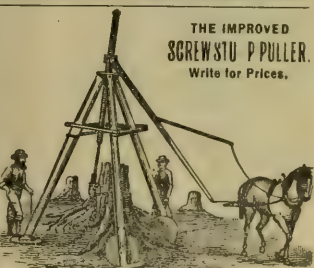
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on the President, with much inward trepidation, and went away his life-long friend. The illustrations picture the President and his sons.

The Cosmopolitan issues a splendid number for December. It is richly illustrated and contains fine reading for the holidays. It is one of the best of the cheaper magazines.

The Theodore Roosevelt Professorship of American History at the University of Berlin, the founding of which, by James Speyer, of New York, has just been announced, is the subject of an article by Librarian Canfield of Columbia University, in the Review of Reviews for December.

The Review of Reviews publishes "exclusively," in advance of all its contemporaries, an address on the occasion of the celebration of the one hundredth anniversary of the Roosevelt Memorial University, October 15, 2050 A. D. This important discourse, which is reported by Robert J. Thompson, of Chicago, analyzes the state philosophy and ideals of Theodore Roosevelt with reference to some of the events of his two administrations, 1905-09 and 1917-21. The address is entitled "The Leaven and the Loaf," and will repay a careful reading by all students of the Rooseveltian philosophy.

A little-known episode in the career of Prince Charles of Denmark, Norway's King-elect, is unfolded by Hrolf Wisby, in the December Review of Reviews. Mr. Wisby was a fellow-midshipman with the Prince some years ago in the Danish navy.

The late Bishop Peck, of the Methodist Episcopal Church, while presiding at a New Hampshire conference, was entertained by a Mrs. Brown, who had a high reputation as a cook. She was especially famous for her mince pies, and at supper the Bishop, who weighed three hundred pounds, at first declined a second help of mince pie.

"I know some mince pies are indigestible, but mine are quite harmless," said Mrs. Brown. So the Bishop yielded and had a second and then a third helping.

Evening came, and the large church was packed with people. The choir sang, and the preliminary services were well started, but no Bishop. Then two or three went out to look for the absent gentleman.

They found him in Mrs. Brown's parlour, writhing in the agonies of indigestion. One of the ministers said: "Why, Bishop Peck, you are not afraid to die, are you?"

"No," replied the Bishop, between groans, "I am not afraid to die, but I am ashamed to."

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All of the work of Blaine, McKinley, Dingley, Roosevelt and Congress along the line of providing reciprocity treaties with foreign nations has been "smothered" in some way in the United States Senate. Most of those treaties would have promoted largely the sale of farm products abroad.

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Now comes Germany with a tariff to go into effect March 1, 1906, which closes the second largest market for food products in the world against us, until we will "tote haul" with her.

Farm products are the first form of merchandise to be hit. Inside of two years, unless the Government acts, we will have lost trade that we cannot afford to lose. There is about \$100,000,000 per year involved in this to American farmers.

We want the name and address of every farmer and business man in the United States who is interested in reciprocity. Address W. E. SKINNER, Sec'y American Reciprocal Tariff League, Great Northern Building, Chicago.

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Mary Washington.

No. 11.

Mrs. Margaret J. Preston, one of the sweetest singers Virginia has ever produced, was a Miss Junkin, daughter of Dr. Junkin, who was at one time president of Washington College, at Lexington, Va. She married Col. J. T. L. Preston, himself a writer of vigor, talent and culture.

Mrs. Preston opened her literary career (1856) by publishing a novel, "Silverwood," which was not sensational and did not succeed in any noisy way, but met with a fair amount of appreciation. The story was simple, but true to life and pathetic.

Poetry was her true element, and in this, she made a high mark. Her longest and best known poetical work is "Beechenbrook, a Rhyme of the War," a narrative poem in 65 duodecimo pages. This poem was written during the war, amidst scenes similar to those described. "Beechenbrook" is a Southern home, the master of which becomes a Confederate officer and fights and dies for the Southern cause. It is a work characterized by impassioned feeling and deep pathos. It draws a beautiful and exalted picture of love between a husband and wife, the master and mistress of Beechenbrook. Altogether, it is a book written from the heart, and which, consequently, goes to the heart.

"Regulus" is also a poem of power. Mrs. Preston has written a considerable number, both of lyrics and sonnets. Amongst the former, "Attala-

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No. 43.—30 acres: an elegant brown stone house, with 5 rooms, 2 porches. Three acres young orchard, in full bearing. All necessary out-buildings, in good repair. A large stone mill building, with 2 sets of corn burrs, has 2 foot water fall. Situated in a thickly settled and refined neighborhood. Mill is in thorough repair and doing a good local business. Price, \$3,200.

No. 65.—616 acres, natural Blue Grass land; well fenced; elegant well water. Good 5 room house, with all the necessary small farm houses in good repair; good sheep barn 32x40. Thrifty young orchard of apples, peaches, pears and cherries. Land is all in grass, except about 40 acres, that is in corn now. Close to schools, church, mill and post-office. Four miles from railroad. This farm usually sends off from forty to fifty export cattle in September. It is located in a beautiful section of the county of Loudoun, 25 miles from Washington, D. C. Price, \$15.00 per acre; one-third cash.

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No. 71.—200 acres: a fine body of white oak timber. This land is just rolling enough to drain well; it is a fine quality of land and is 5 miles from the R. R. This timber is estimated to cut from two to three thousand feet of lumber to the acre. The land is worth more than I am asking for both and a quick business man can buy this tract and make on the clear either the land or the timber. It will not be on the market long at the price I am asking. Price, \$15 per acre.

No. 75.—Contains 60 acres of Good, land Facing on McAdam's Pike, Land a little rolling, but considered Level, well fenced, about 10 acres in timber, 23 Miles from Washington. Thrifty young orchard, apples, peach and pear, good 6 room house. Stable and other out houses all in good repair, 1-4 mile from store, P. O., mill, and shops, in elegant neighborhood. Price \$1,250.

No. 106.—Contains 330 acres: 250 acres cleared, and very well fenced, this was at one time one of the finest farms in its section. It is naturally a fine quality of soil, but has been rented for several years, and has the face knocked off it; it is a chocolate Clay Soil, which is easily improved, and will hold improvement after receiving it. 50 acres of rich bottom land on Bull Run river; the dwelling is a comfortable 5-room house, with all the other buildings in very good repair. This farm will be sold on easy terms, and will support itself with grazing cattle and sheep, 4 miles from railroad station, 1 mile from store, and post-office. Price \$3,500.

W. E. MILLER, Herndon, Va.

ment" is considered one of the best, but to my thinking she has written nothing sweeter than the poem I now submit:

CALLING THE ANGELS IN.

We mean to do it; some day, some day,
We mean to slacken this feverish rush

That is wearing our very souls away,
And grant to our goaded hearts a hush
That is holy enough to let them near
The footsteps of angels drawing near.

We mean to do it: oh, never I doubt,
When the burden of day time toil is o'er,

We'll sit and muse while the stars come out
As the patriarch sat at the open door
Of his tent with a heavenward gazing eye,
To watch for the Angels passing by.

We have seen them afar at high noon-tide
When fiercely the world's hot flashings beat;

Yet never have bidden them turn aside
And tarry awhile in converse sweet,
Nor prayed them to hallow the cheer we spread

To drink of our wine and break our bread.

We promised our hearts that when the stress
Of life work reaches the longed for close,

When the weight we groan with hinders less,

We'll loosen our hearts to such repose,
As banishes care's distracting din,
And then—we will call the angels in.

The day we dreamed of comes at length.

When tired of every mocking guest
And broken in spirit and shorn of strength,

We drop, indeed, at the door of rest,
And wait and watch as the days wane on—

But the angels we meant to call are gone.

Mrs. Cornelia M. Jordan, nee Matthews, was born in Lynchburg, Va., January 1, 1870. She was educated at the Catholic Academy of Visitation at Georgetown. She showed the poetic faculty strongly even in those early days, and was called "the poet laureate" of the school. She married Mr. F. H. Jordan, a lawyer of Luray, Va. Her first volume of poems, "Flowers of Memory and Hope," a collection of fugitive poems, appeared in 1881, published by A. Morris, of Richmond, in duodecimo, 330 pages.

In 1885, she declined, in rather an ill timed way, a volume entitled "Corinth and other poems."

The leading poem was written in Corinth, where she went to be near

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her husband, who was on Beauregard's staff. It was a spirited war poem, praising the gallantry of Southern soldiers, with hits, here and there, at the tyranny of the North. Gen. Terry, then commanding at Richmond, ordered it burnt as incendiary and objectionable, and his orders were carried out, the volume forming a bonfire before the Lynchburg court-house. Had Mrs. Jordan waited a year or two till the violent public excitement had subsided, she would have been spared this indignity, and the public would have had the benefit of her work.

She also wrote "A Christmas poem for children," a brochure of about 20 pages. 1865. "Richmond, her glory and her graves," a brochure of 30 pages. 1867.

The last contains some other poems among which may be mentioned "Appeal for Jefferson Davis," "Farewell to the Flag," "Our Dead."

One of her finest poems was the one on the death of Jackson.

Mrs. Jordan was a woman of culture, and of fine natural gifts. If she had had "push" and enterprise, she would have made much more noise in the world than she did, but these traits were not compatible with her temperament. If she had been so situated as to devote herself entirely to literature, she would have attained a higher standing in it, but the cares and struggles of existence forbade this. As it is, however, she manifested a vein of true poetic talent, not startling or extraordinary, it is true, but still refined and genuine.

Mrs. Rosa Vertner Jeffrey, nee Griffith, was a native of Mississippi. In 1858 she published a volume of poems (Ticknor and Fields) which was very favorably received. Prentice, of the Louisville Journal, said of it: "In the blooming field of modern poetry, we really know not where to look for productions at once so free from defect, and so full of merit, so luxuriant, yet so pure. She has written nothing which 'dying, she would wish to blot.'"

Another critic styled her "The Mrs. Norton of the South." She wrote also several novels which had only an ephemeral existence.

She was married twice, first to a Mr. Johnson, then to a Mr. Jeffrey, of Kentucky.

Miss Susan Archer Talley was born in Hanover County, Va., being of Huguenot descent. At the age of eleven, she had the misfortune to lose her hearing, and this had a great effect on the bent of her studies, tastes and habits, causing her to withdraw more into the inner world of her own thoughts and fancies. She commenced writing verses at thirteen, and in her sixteenth year, some of her poems were published in the Southern Literary Messenger. The critics dealt kindly with her. Griswold gave her

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B. 10 acres adjoining above. One of the most commanding sites in Vienna. Entirely planted to apples, pears, peaches and cherries. Over one thousand young and thrifty trees on the place. Price, \$1,500; half cash, balance to suit. This ought to go with above, but will be sold separately.

No. 137. 450 acres at Clifton Station. 2 cottages and one tenant house on the farm; also 18-room hotel, with basement, that has been used for store-keeping; plenty of nice shade. This is a fine business place, a fine opening for the right man. The tract can be divided up into a number of small places. The hotel has done a fine business. Price, \$10,000; on easy terms. There is a fine, noted spring near the hotel.

No. 105. 98 acres; 30 clear, 20 in cultivation, the balance in wood; fine stream through the place; 3 miles from railroad. Near school, church and store. Price, \$500. Terms to suit. This would make a cheap farm.

No. 106. 25 acres; all clear; 14-room house, in good condition; well at the door; barn and all necessary outbuildings; good fence; all kinds of fruit; 2½ miles north of Vienna, near school, churches and store. Price, \$3,500 on easy terms. This is a fine, large home, in good condition; has beautiful shade; would make a fine summer boarding house.

No. 182. 35 acres near Arlington; 33 cleared and in cultivation, 2 acres in oak and other timber; four frame houses, two of five rooms and two of three rooms, barn, good wells. Five minutes' walk from the trolley car, ten

minutes' from schools, churches and stores. Price, \$15,000. Terms: All cash preferred. Will sell in tracts not smaller than five acres at \$500 per acre. This property would make very valuable building sites.

No. 107. A bargain. 17 acres. 10-room stone and frame house in good condition. Has all necessary outbuildings; plenty of good, pure water; has peaches and apples. Fenced with pickets and boards. Also a large saw and grist mill with hominy and crusher attachments; is run by water and steam power. Grist mill is 61 feet long and 42 feet wide, 3½ stories high; saw mill attached is 40x40, has a capacity of 2,800 feet a day. The mill is kept busy all the time. It is in a fine neighborhood. This is a fine opening for the right man. The reason for selling is that the owner is getting old and not able to do so much business. If sold right away will take \$3,500 for house, farm and two mills, or will exchange for smaller property.

No. 89. Fine blue grass farm. 500 acres; two sets of buildings; new 8-room house and cemented cellar. Old house has six rooms. Good well at the door of each house. Two good barns and all necessary outbuildings. 500 fruit trees; 11 good springs; well fenced; 45 acres in meadow; 30 acres in rye; 80 acres in good pasture; 85 acres for corn this year; one-half mile from school, church and store. This is a splendid place and is very cheap. Price, \$5,500.

No. 180. 18½ acres. 3 acres cleared, balance in all kinds of timber. Near Springfield station, old house, spring nearby, some fruit, two miles from school, church and store. Price, \$300, on easy terms.

No. 230. For sale. In Vienna, on easy terms, new 6-room house, reception hall, 3 porches and fine cellar, barn and other outbuildings, well on the porch, lot 10x220, all set out in peaches. Electric car stops near the house. This is a beautiful home. Would be fine for an office-holder. Let me show you this house.

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APPLY TO

E. A. LANCASTER, Jr., Richmond, Va.

unqualified praise, and Edgar Poe rated her highly, pronouncing imagination to be her distinctive quality.

Miss Talley published a volume of poems in 1859. The chief poem in it, "Ennerslie," reminds the reader strongly of "The Lady of Shalott." There is a hoary tower, grim and high, a lady fair and pale, and a young Lord (Ennerslie). Altogether the poem seems to bring around us the atmosphere of "Many towered Camelot."

After "Ennerslie," I believe the most admired of her poems are "Madonna," "Cloistered," "Guy of Mayne," "Rest," and "Autumn Rain."

She has also written some fine prose tales. I remember an admirable one that appeared in one of the early numbers of St. Nicholas, entitled "Nellie in the Light House."

She married a German by the name of Von Weiss.

Mrs. Fannie Murdough Downing is a native of Virginia, being a daughter of the late Mr. John Murdough, of Norfolk County, Va. The Murdough family is a talented one, having produced some of the finest legal ability in Virginia. Mrs. Downing's uncle, Mr. James Murdough was considered one of the ablest library lawyers in the State. In 1851 she married (while still in her teens) Mr. Charles Downing, secretary of State, at Tallahassee. She afterwards moved to North Carolina.

She wrote a few novels, but they do not exhibit as much talent as her poems, some of which are very earnest and impassioned, and show traces of genuine poetic fire.

Her longest poem (though not her best) is "The Legend of Satawba." It is supernatural and impossible, still it is redolent of poetic feeling.

"Egonet Ipse," is a physiological poem, full of the unrest of the awakened soul.

"We will Wait," is one of her strongest and best poems.

Mrs. Downing is a woman of intense Southern feeling, which is evinced in many of her poems, especially those on Davis, in prison at Fortress Monroe. She is cultivated in the classics, as well as in modern literature, and is a social leader.

Amongst the female poets of the South, Amelie Rives deserves a distinguished place. She is a young woman of rich and versatile gifts, having made her mark as a novelist, a writer of short stories, a dramatist and a poetess. She is the granddaughter of William Cabel Rives, Congressman, Senator and Minister Plenipotentiary to France during the first half of the 19th century. He was a man of marked literary talent and was the author of a "Life of John Hampden," "Ethics of Christianity," and "The life and times of Madison," a valuable work in three volumes—but which the author died before complet-

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ing. We see that his grandaughter legitimately inherited her literary gifts. She was born in Richmond, Va., in August, 1863. Her first printed production was "A brother to Dragons," published by the "Atlantic Monthly," which magazine, by the way, also published Miss Murfrey's first tale "The prophet of the great smoky mountain," and Mary Johnson's first novel, "The Prisoners of hope," thus introducing to the public, three talented young Southern authoresses. "A brother to Dragons," won immediate recognition, and shortly afterwards, a very fine sonnet by Amelle Rives, entitled "In two moods," appeared in the Century. Her next poem to appear was "Grief and Faith," in which there was a ring of deep and passionate feeling.

She wrote two dramas in verse, "Athelwold" and "Herod and Mariamne." The latter is a very powerful production. She has also written a poem entitled "Asmodeus," and a considerable number of detached and fugitive lyrical poems. She has just broken a long silence by issuing a new poem "Selene," of which the theme is the love of Diana (Selene) for Endymion. A critic says, "her delineation of the haughty goddess, whose adoration of a mortal man destroys her pride and power, yet whose love is so passionately enthralling, that she welcomes the humiliation of her high estate, is full of human charm and exquisite emotion."

I subjoin a short poem by Amelle Rives.

A HYMN TO THE SEA.

My heart, O sea, my heart too hath its tides,
Its moods of rage, its calms, its storms again,
Its ice bound regions where no life abides,
Its snow fields where a rose would seem a stain.
Its caverns deep, more numerous, musical
Than shells that in their dreaming sing of thee.
Its wrecks majestic and its towers tall
Of moon white castles, built for ecstasy
But turned by time to echoing tombs forlorn
Where many a drowned hope doth lie in state.
So, these are mine too, both that jubilant scorn,
That blithe disdain of ever changing fate.
Which thou by very mutability
Dost manifest to all—that would I learn of thee!

(2)

Before thine altars of implacable rock
Or hung with foam shower garlands iridescent,
And jarred ever by the clangorous shock

Warranted to Give Satisfaction.

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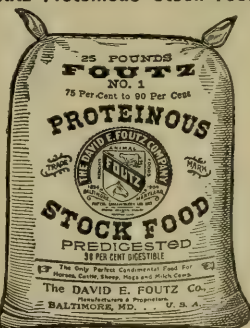
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Of votive waves—there while the mirrored crescent

Of young Selene's forehead gem doth rest

As in a shaken glass of chrysolite Upon the love tossed armor of thy breast,

Taere while long singing lines of breakers white,

Like rows of vestal virgins seen afar, Come trooping up thy dark sonorous aisles,

And evening offers up her loveliest star,

There will I proffer thee my vanished smiles,

My joys foresworn, my sorrows yet to be,

So thou but hear my prayer, O well beloved sea!

THE FARMER AND THE BICYCLE AGENT.

Some years ago, soon after bicycles began to be freely used throughout the United States, an agent for a New York house turned up at a village in Central New York. He expatiated to an old farmer upon the virtues of the new machine, dwelling upon what a time-saver it was, and withal how fashionable it would be for the old farmer to be able to ride down to the village on one of the new-fangled machines whenever he wanted to.

"Why," said the agent, "whenever you go to the post-office, bank or store everybody will stop and stare at Farmer Wilson, and pretty soon you'll be the most-talked-of man in the whole county."

"That may be so," replied the farmer, "but I tell you I'm a-needin' a good new cow mo'n I am one o' them things you're a-talkin' about."

Nevertheless, the agent extracted a promise that the old man would save up his money and purchase a bicycle when the agent came around in the fall.

According to promise, the agent was on hand in the fall with the wheel. The farmer took him in charge and carried him out to the lot and showed him a fine Jersey cow.

"That's what I bought with the money I saved up for you," said the farmer. And without waiting for the agent to recover from his surprise he went on, "I 'lowed that I needed the cow mo'n I did the bicycle, an' there she is. Ain't she a beauty?"

When the agent recovered his breath he said, "You'll look funny riding that cow to town, won't you?"

"Y'as," drawled out the old farmer, "but I'd look a darned sight funnier tryin' to milk a bicycle."—Silas X. Floyd in December Lippincott's.

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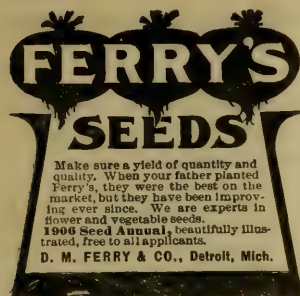
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tion at Atlantic City, N. J., November 20, 1905.

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Whereas, Our internal revenue laws, contrary to the policy of all other great commercial nations, make no distinction between alcohol used as a beverage, and that used for industrial purposes, a tax of \$2.07 per gallon being imposed on all high proof alcohol, and

Whereas, It has been found entirely practicable in Germany, France, Great Britain and other foreign countries, which are our competitors for the trade of neutral markets, to exempt from taxation alcohol rendered unfit for internal use, while taxing beverage spirits, and

Whereas, The removal of the tax from industrial alcohol would greatly reduce the price of that material, and would make possible the establishment of many new industries for the manufacture of articles now imported from foreign countries, thus giving additional employment to American workers, and creating larger domestic markets for our farm products, and

Whereas, It has been demonstrated in Germany, France, and other foreign countries that alcohol is an excellent substitute for gasoline as a motor fuel for running all kinds of farm machinery, and with the tax removed immense quantities would be used for this purpose, and for heating, cooking and lighting, and

Whereas, The demand for alcohol, consequently on its general consumption for industrial purposes, would create large additional markets for our surplus corn and other farm products from which alcohol is distilled;

Resolved: That the National Grange, representing the organized farmers of the United States, urgently requests the removal of the internal revenue tax from alcohol rendered unfit for us as a beverage, and urges upon Congress the necessity for the immediate enactment of legislation for this purpose, and the Legislative Committee is hereby directed to urge such modification of the revenue laws as will carry out the purpose of these resolutions.

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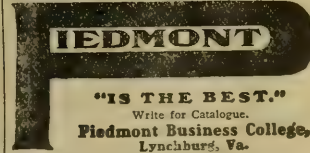
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SOME PHASES OF "THE SIMPLE LIFE."

Mary Washington.

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As seemingly untoward circumstances sometimes lead to good results, it occurs to me that the servant problem, with all its perplexing and vexing details, is tending to lead us towards a simpler life. The difficulties about service are so great, and the exactions of our domestics are increasing to such an extent that the person of small or average means is either unable to hire competent service, or can only do so by stinting the family in other respects. The greater part of our competent servants, in this section of the country, have gone North, entering wealthy or well-to-do families where they receive higher wages than an ordinary Southern family could afford to pay. The bulk of those who remain behind try to get employment in some Southern town or to make their living by taking in washing, or doing other jobs, whilst there is still a class who idle around at home, supported by the men of their family. All these things are bringing about a gradual change in the rural districts of Virginia, I might almost say a quiet revolution. The revelation has slowly broken on white families that they can live without negro service, and do their own work, or the bulk of it, without being overburdened. The bare idea of such a thing would have been perfectly appalling to us, at the time of Lee's surrender, and for many years afterwards. It has dawned on us only in the second generation that has sprung up since that event. We who were born under the regime of slavery had the idea deeply ingrained in our minds that existence was simply insupportable without servants, and a plenty of them, and it has taken us just the same length of time to get rid of these ideas as the Israelites spent in wandering in the wilderness between Egypt and Canaan—40 years. For years after Lee's surrender, we could still enjoy (though on a new basis) the results of our trouble and pains in having trained our servants, for we could still have them as hirelings. Gradually that generation died out and a new generation arose that "knew not Joseph. Still from old habit, we pinned our comfort and happiness to having negro servants, but year by year, the

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WHITE SHELLED CORN (buyer to furnish sacks).

1 ANGORA BUCK, a fine breeder;

To change Sires, I will trade my fine \$35 Berkshire Boar, LORD MILNERAL 7235, farrowed Apr. 5th, 1902, for another of equal value and breeding; pedigrees exchanged. My prices are f. o. b. here. Correspondence solicited.—H. B. SMITH, Jr., Hanover, Va.

"Money in Poultry."



Our new 1906 book tells how to make it. Tells how to treat diseases. Feed and care for poultry successfully. Illustrates and tells all about 40 varieties FAMOUS THOROUGHBRED FOWLS, with Low price on stock and eggs. Send 6c. in stamps to JOHN E. HEAT, WOLE, Box 1, Harrisonburg, Va.

FINE FOWLS.

BARRED, BUFF and WHITE PLYMOUTH ROCKS; SILVER, WHITE, BUFF and PARTRIDGE WYANDOTTES; BLACK MINOR-CAS; BLACK LANGSHANS; LIGHT BRAHMAS; PARTRIDGE COCHINS; WHITE and BROWN LEGHORNS.

We are headquarters for stock and eggs of the above breeds, and will give satisfaction every time. OAKLAND POULTRY FARM, C. J. WARINER, Manager, Ruffin, N. C.



Valley Farm

BARRED ROCKS
S. C. B. LEGHORNS
(Forsyth Strain).

Stock for sale.

Prices right.

CHAS. C. WINE, Mt Sidney, Va.

S. C. Brown Leghorn

Eggs, 75 cents for 15. Book your orders now for Spring Delivery. Special care given to each order. Satisfaction guaranteed. McHERRIN POULTRY FARM, Branchville, Va.

The manager of the above farm is well-known to me and is thoroughly reliable. S. B. COGGIN, Agt., Southern Express Co.



20

White Wyandotte

COCKERELS for Sale.
Beauty, Size and Eggs
is what I breed for
Fall Creek Poultry Farm
A. L. PARKER, Ashland, Va.

WHITE Plymouth Rocks Wyandottes S. C. Buff Leghorns AND Pekin Ducks.

If you want quality, give me your orders for Eggs for hatching, and I will guarantee satisfaction. My stock is second to none and bred for UTILITY as well as for SHOW. EGGS: \$1.50 for 15; \$2.50 for 30; Pekin Duck Eggs, \$1 for 3.

SOME CHOICE COCKERELS FOR SALE AT BARGAIN PRICES. W. O. RONDA-BUSH, Uno, Va.



LOOK!

A fine lot of

Barred Rock

Cockerels, \$1.50 each. The celebrated BILTMORE STRAIN. Order at once as to get the cream of the flock, they are going fast.

Powhatan Poultry Yards,
CHANTILLY, VA.

W. Plymouth Rocks

LARGE AND PURE WHITE.
BEST LAYING STRAINS.

Cockerels and Pullets for sale
Good B L E. HORN Cockerels at 75c. and \$1.00
R. W. HAW, Centrales, Va.



BERGER'S

BARRED PLYMOUTH ROCKS

Bred for Utility and beauty. A limited number of choice cockerels, hens and pullets for sale at reasonable prices. Eggs from selected matings. \$1.50 for 15; \$2.75 for 30; 44 for 48; Eggs from Utility mating \$1. for 15; 85c. per 100. Your patronage solicited.
A. F. BERGER & SON, R. F. D., 3
Richmond, Va.

BARRED

PLYMOUTH ROCKS.

AS GOOD AS THE BEST.

25 pullets for sale at \$1. each or \$5.50 for 6 or \$10.50 for 12 or \$21. for all. Eggs \$1. per 15, \$1.75 per 30 or \$5. per 100. Satisfaction Guaranteed.
A. J. S. DIEHL, Port Republic, Va.

Cockerels,

BARRED PLYMOUTH ROCK, from trio of Bright's Prize Winners. "Brown Beauty Strain." B. LEGHORN, "Brown Beauty Strain."

M. BRONZE COBBLETS—beauties.—MRS. JNO. F. PAYNE, University Sta., Charlottesville, Va.

OSTERHOUTS

BROWN LEGHORNS

have been line Bred for 19 years. They have been WINNERS wherever exhibited. They are regular EGG MACHINES. Males of line breeding are the kind that will IMPROVE YOUR FLOCK. NO SUCCESSFUL BREEDER ever reached the top by using hap-hazard bred males. I have a few more nice breeding males at \$2.00 to \$3.00 each. EGGS after Feb. 1st, 1906, at \$2.00 per 15.—GEO. W. OSTERHOUT, Bedford City, Va., Route 1.

difficulties have increased, and their attachment to us has lessened until it has become almost, or quite extinct, and the high prices they can command at the north or in our own large cities renders it increasingly difficult for country people to hire competent service. The revelation that we can get on without them has been a truly surprising and pleasing one—a real emancipation, both in mind and body. When it first dawned on us that it was possible to support existence without domestic service, we supposed that it would be an existence of painful servitude and unremitting drudgery, but we have found that this is not necessarily the case, if the housekeeper has good health, is brisk and methodical, and is supplied with modern conveniences and labor saving contrivances. Another thing, the other members of the family must cooperate with her, not only by giving her active help, but also by the negative method of saving her trouble. We must realize fully that we have entered on a new era, and that this is new, not old Virginia. We can no longer keep open doors, as in "the good old times" when we had a troop of efficient servants. Our guests would literally have to pay us visits. "Like angels" visits, few and far between," except for such casual calls, which while keeping up a social spirit, would not be a tax on the housewife.

Another thing, we would have to cease keeping up the profuse and varied fare of "the good old times" when the breakfast and supper table were crowded with batter bread, waffles, beaten biscuit, risen bread and numerous relishes. One or two kinds of bread for breakfast—a good, warm, substantial dinner, and cold sliced bread for supper, with some relish left over from dinner, would be a good menu for "the new woman," doing her own cooking. She will find, in the long run that reducing and simplifying her bill of fare will conduce to the real good of herself and household, saving her money, time, labor and digestion. It should be nourishing, wholesome and plentiful, but there were many luxurious articles belonging to the old regime that could be easily lopped off—without either the health or comfort of the family being damaged. By a judicious arrangement of her domestic matters, a woman (especially one with a considerate and helpful husband and children) can so systematize her work as to leave herself plenty of time for reading, rest and recreation in the afternoons. In families where the members do their own work, it seems to me the tendency is for them to be drawn nearer to each other, by rendering direct personal service in which they consult the tastes and needs of each other. It establishes a closer and sweeter interdependence than in cases where the family have a great corps of servants to attend



FARMERS

BEGIN THE NEW YEAR RIGHT. ORDER PUREBRED STO: K AND POULTRY AND MAKE MORE MONEY. I have for sale the following: 12 PRINCESS S. C. WHITE LEGHORN Cockerels (the \$5.00 quality birds) at just half price if taken at once. 50 Choice BARRED—WHITE and BUFF PLYMOUTH ROCK Cockerels, also Pullets and Yearling Hens. Beautiful birds of the following breeds: WHITE and SILVER LACED WYANDOTTES, S. C. BROWN LEGHORNS, BLACK MINORCAS, R. I. REDS, BRAHMAS, SILVER SPANGLED HAMBURGERS, MOTTLED ANCONAS, and S. C. BUFF ORPINGTONS. PEKIN and ROUSEN Ducks of the best strains.

My MAMMOTH BRONZE and WHITE HOLLAND Turkeys are better than ever. Order now since prices will advance rapidly after the middle of January. Choice Young Toms \$5.00 each Hens \$4.00 each either bred. Last year I was unable to supply all of my turkey customers. Eggs of all of the above birds for hatching in season. Let me book your order now and ship when wanted.

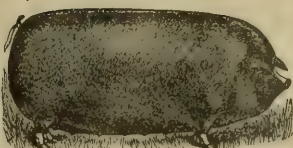
POLAND CHINA, BERKSHIRE and CHESTER WHITE PIGS 2, and 4 month² old, singly and in pairs and trios mated for breeding. SERVICE BOARS and BRED SOWS a specialty.

SOUTHDOWN and SHROPSHIRE SHEEP from the best imported strains. Some choice BRED EWES and last Spring Lambs to offer.

Write me your wants today. I can supply them and save you money if quality is considered.

Satisfaction guaranteed and references furnished. Address,

JAS. M. HOBBS,
1521 Mount Royal Avenue,
BALTIMORE, MD.



Rhode Island Reds.

As good layers as Leghorns, as large and well shaped as Plymouth Rocks, and of beautiful markings. The newest and most desirable fowl now offered.

15 young cockerels at from \$1.00 to \$2.00 each, NOT THE FANCY MARKINGS. 20 Pullets at \$1.50 each. Eggs for hatching \$1.50 per 12.

BRONZE TURKEYS, not extra large but beautifully marked, extra prolific layers. \$7.50 a trio.

Young Toms \$3.00 each. Ready for shipment in January—A. R. VENABLE, JR., Box 147, Farmville, Va.

White Wyandottes

exclusively. For the next 30 days, I will offer some extra good values in WHITE WYANDOTTE COCKERELS. G. F. POINDEXTER, Greenlee, Rockbridge Co., Va.

ROSE and S. C. RHODE ISLAND REDS.

S. C. Brown and White Leghorns, White Wyandottes, and Hatched Plymouth Rocks

Eggs \$1.00 per 15; \$1.75 per 30; \$2.75 per 50; \$3.00 per 100. RIVERSIDE POULTRY FARM,

J. B. COFFMAN & SONS, Prop'rs., R. F. D., 19, DAYTON, VA.



SINGLE COMB

R. I. Red Cockerels

\$1 to \$1. Eggs in season. 3 Pedigreed POLAND CHINA Boar Pigs, \$5 each, if taken at once.—WM. P. KEMP, Jeffress, Va.

SINGLE COMB

Rhode Island Red

Cockerels, \$1.00 each, and up, according to marking. Eggs for Hatching, 15 for \$1.00.

I keep only one strain, GUARANTEED THOROUGH-BRED. Apply to

W. H. CREWS, Saxo, Va.

PURE-BRED

Rhode Island Red

Cockerels at \$1.00 each. Address MRS. SAMUEL C. DANIEL, Charlotte, C. H., Va.

PIEDMONT HEIGHTS FARM, YANCEY MILLS, VA.

has for sale a number of choice WHITE and BROWN LEGHORN and WHITE WYANDOTTE Cockerels; high quality. Get one or more and grade up your flock.

FIRST CLASS

EGGS and STOCK

My prices will please all as will the quality. Some first prize cocks head my flocks. BUFF ORPINGTONS, WHITE and BROWN LEGHORN, GOLDEN, SILVER and WHITE and SILVER PENCILED WYANDOTTES, S. S. HAMBRINGS, BLACK LANGSHANS, BLUE ANGELS, and S. C. R. I. REDS. Won seven 1sts on my S. P. WYANDOTTE; 1st and 2nd hen; 1st pullet.

O. E. SHOOK, R. F. D. 1, Waugh, N. C.

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to their needs, and where, amidst the whirl of business, or of social life, they do not come into sufficiently close and constant contact with each other to become really intimate. The mother who nurses her own child has the sweetest comfort and alleviation for whatever fatigue she may endure. She has no unrest or anxiety, fearing the child may be neglected, or injured in some way and its love for her is for greater from having its needs supplied by her, and looking to her for all its lesser pleasures. This is a phase of "the simple life" that is rich in pure pleasures.

THE ROAD QUESTION.

"There is a growing sentiment throughout the country that the Federal Government should appropriate money to assist in building trunk lines of roads. Large sums of money have been expended by the National Government to improve our waterways, encourage the building of trunk lines of railroads and to build roads in the Philippines. It would seem as if public convenience and necessity demanded that the Federal Government should still further assist in the internal development of our country by improving the highways. It seems strange that a country that leads the world in progressiveness should allow its roads to get into such a deplorable condition. Ours is the only civilized country that has neglected its highways. European countries have national systems of roads, the best features of which could well be copied by this country to its great advantage.

"The different elements favorable to improving our highways should unite and urge favorable action by Congress. The people of this country are awakening to the economic importance of this great reform which in the near future will become our next national work for internal development. It calls for concentrated action, and all those interested in this great problem should do everything in their power to aid the movement for better roads, to insure the construction of a system of highways that will meet the real needs of the country."—W. L. Dickinson, Mass.

TEMPERATURE and RAINFALL FOR NOV. 1905. IN TIDE-WATER, VA.

Editor Southern Planter:

November, 1905, was a model month in many respects. The coldest was 31 above zero on the 30th. The warmest 74 degrees, one day at that figure.

The average temperature for the month was 51 degrees, which is exactly the average for the past 35 years, as shown by the Government Records. The rainfall for the month was 9.10ths of an inch. This amount of rainfall was much below the average, as the average fall for the past

S. C. Buff Orpingtons.

Mammoth Bronze Turkeys.
We are now ready to book orders for EGGS for HATCHING

Most of our pens of Orpingtons will be headed by males from Cooks Prize Winning Strains. Mated to tens of excellent breeding.

REMEMBER, WE GUARANTEE SAFE DELIVERY AND THAT ALL STOCK AND EGGS WILL BE AS REPRESENTED. We are giving away nearly enough in free premiums to prepay express on stock or eggs. Write U. S. QUEENLAND FARM, Hagan, R. D., 2, Box 7, Va.

ORPINGTON PLACE.

(Formerly "Ooconeechee")

Single Comb Buff Orpington Chickens and Eggs. Cockerels \$1.00.

Pedigreed POLAND CHINA Pigs \$5 each. Older animals at proportionately low prices. J. F. CRUDDUP, MNGR., Jeffress, Mecklenburg Co., Va.

Glenview Orpingtons.

Single Comb Buffs Exclusively.

My cockerels will improve the quality of your stock—Wm. Cook & Sons, strains—Prices \$2 each and up. No culls for sale.

B. S. HORNE, Keswick, Va.

SINGLE COMB

BROWN LEGHORN COCKERELS. Biltmore stock; Extra fine pure bred birds 8 months old price \$1.00 each; 1 so 15 fine pullets of same age, and breeding; we will close out at \$1.00 each; \$5.00 for six; \$9.00 for twelve; Prompt attention; Address: GITCHELL BROS., Charlottesville, Va., R. F. D. 2.

PURE-BRED

S. L. and W. Wyandottes

AND

S. C. Buff Orpingtons.

Special inducements to quick buyers. Females, \$1; Cockerels, \$1 to \$3. NO EGGS for Sale.—EDGECOMBE FARM, Box 141, Petersburg, Va.



SINGLE and ROSE COMB

Brown Leghorn

Cockerels, fully grown.

PEKIN DRAKES

(C. C. Shoemaker's strain)

Farmers' Prices

MRS. D. A. ALLEN,

Barbourville, W. Va.

S. C. B. Leghorn

Cockerels: limited number of pure-breds; none better; \$1 to \$1.50 for quick orders; Eggs, \$1 for 15; orders being booked. 3 TO 4 CARS RED CEDAR FOR SALE.—CEDAR RIDGE FARM, W. S. Guthrie, Prop., R. F. D., 2, Troutville, Va.

EDGE HILL FARM POULTRY.

BROWN LEGHORNS

EXCLUSIVELY.

Eggs for hatching from new matings. Best laying strain \$1.00 for 15, \$6.40 per 100. No stock for sale.

CAL HUSSELMAN, Roxbury, Va., R. F. D. 1.

SOMMERS'

BARRED PL. MOUTH ROCKS

of individual merit; 16 years line bred for laying qualities, handsome plumage, large size, (not yarded). COCKERELS, \$1 to \$2; FULLETS, \$1 to \$1.50, some fine M. B. TURKEYS; toms and hens \$3 to \$4.

Write your wants; nothing but good stock sent out. I exchange turkeys sometimes. Will exchange Poultry for Berkshire sow or sow pig, registry and transfer included.
E. F. SOMMERS, Somerset, Va.

JARNAGIN STOCK FARM

for the best poultry.

R. C. Brown and S. C. Buff Leghorns; White (Pedigreed) and S. L. Wyandottes; Barred P. Rocks, (Thompson's Ringlets direct); C. Rhode Island Reds; M. B. Turkeys. Grand lot White Wyandotte and Plymouth Rock Cockerels. Stock \$1 to \$2; Eggs, \$1.50 per sitting.

Write your wants and get Special price on large orders.—MRS. J. R. JARNAGIN, Tate Spring, Tenn.

For--COCKERELS--Sale

A handsome lot of S. C. W. LEGHORN. (Biltmore prize winning strain), and RHODE ISLAND REDS, \$1.00 each, 3 for \$2.00. No tolls for sale.

M. B. TURKEY toms, sired by a 50 lb. tom, perfect in every way, and a bargain at \$4.00 each.

Satisfaction guaranteed.—MRS. F. E. WILLIAMS, Charlottesville, Va.

IMPROVE YOUR CHICKENS.

High class BLACK MINORCAS exclusively. My flock averaged over 200 eggs each year. \$1.00 for 13 eggs; \$2.50 for 34.—J. S. WORSHAM, 1108 Polk St., Lynchburg, Va.

LOOK HERE QUICK.

Going now. Large, handsome MAMMOTH BRONZE TURKEYS, 80 strong. Headed by a 45 lb. Tom. WHITE WYANDOTTE and BARRED PLYMOUTH ROCK cockerels, S. C. B. LEHORN hens.

Send in your orders for the beauties to LANDOR POULTRY YARDS, Miss C. L. Smith, Prep., Crexton, Va.

BLACK MINORCAS.

I have a few more nice pullets and cockerels, Mar. and April hatching for sale.—A. C. THROCKMORTON, Rapidan, Va., R. F. D., No. 1.

Barred Plymouth Rock

Cockerels for Sale; the kind to put at head of your yards.
J. TABB JANNEY, Van Cleaveville, W. Va.

PURE-BRED

War Horse Game

fowls; males, all ages for sale. C. T. LAMB, Garland, N. C.

QUALITY

BARRED PLYMOUTH ROCKS. See my ad in October Planter, Page 738. L. W. WALSH, Drawer 245, Lynchburg, Va.

We have a dozen or more Pure-bred

S. C. Brown Leghorn

roosters to dispose of 75 cts. f. o. b. here. They are beauties. LAUREL HILL POULTRY FARM, R. F. D. 1, Roxbury, Va.

Mention The Southern Planter when writing advertisers.

35 years, for November, has been 2.32 inches.

Still the 9-10ths of one inch of rain was well distributed, falling on the 1st, 6th, 14th, 16th, 20th, 25th, 26th, 28th and 29th. It is a very noticeable fact that the rains are not "bunched" here, but are very nicely distributed, not only during the month, but the most rain falls in summer season when most needed, and when it does the most good.

November gave us 21 pleasant sunny days—a regular "Sunny South" month. There were only 9 days of doubtful weather, or what is termed by the Government, "cloudy weather," during which days the 9-10ths of an inch of rain fell.

The late frosts of November cut down all the tender plants and vegetables, such as tomatoes, late potatoes, etc., etc.; but the kale cabbage, spinach, lettuce, onions and other fall and winter crops have not, to date, Dec. 12th, been injured a cents worth by cold weather. On the contrary the face of the country is dotted here, there and everywhere, with green fields of produce now being sent to markets every day, and this is expected to continue during the entire winter.

The winter farm crops of rye oats and crimson clover are also looking well. Farmers are getting as high as 400 bbls. of spinach to the acre, and the price yesterday was \$1.25 per bbl.; a low price, but still it pays, seeing that the crop is planted, the last of August or 1st of September, and marketed before Christmas. So that the same land is ready for at least two more crops within the 12 months.

Cabbages are now being transplanted at a rapid rate, as it is generally intended to finish that work before Christmas. Millions upon millions of cabbage plants are being set out and the cabbage crop is increasing yearly. If no serious setback happens to the crop there is a half million barrel crop in sight.

If the Norfolk "Trucking Section" should ever become thoroughly and "intensively" cultivated, and all devoted to the growing of fruits and vegetables, we could supply the entire country, at the present rate of consumption; but consumption of our produce is increasing rapidly, about as rapidly as the production is increasing.

It is truly a wonderful industry. It is also a truly wonderfully good climate, which encourages this industry. The liberal and well distributed rainfall; the long growing seasons; and the fact that crops are grown and marketed, practically, all winter; the cheap transportation not only from truck farm to city; but from city to all the great consuming centres; these and many other important advantages are rapidly sending this trucking section far to the front—a position which

FOR TURKEYS SALE.

The Celebrated MAMMOTH BRONZE, bred by the best Poultry Yard in the East. First orders, first choice of birds. PIEDMONT POULTRY PLACE, Miss. E. Calle Gilles, Prop., Whitties Dep., Va.

TURKEYS.

EXHIBITION OAKSHADE M. B. TURKEYS for sale. Pure Wolf Strain. Perfect in color and size. Express prepaid.

B. ORPINGTONS and WHITE WYANDOTTES only.—HUGUENOT POULTRY YARDS, Route No. 2, Dublin, Va.

PURE-BRED

BRONZE TURKEYS.

Mammoth in size, correct in plumage; individually the best we have seen. Foundation stock from two of the best yards in the country. Prices very reasonable. W. G. HUNDLEY, Worlds, Va. Dog and chicken fancier. Sherwood Chickens, M. B. Turkeys, English Setters and Pointers.

MAMMOTH
BRONZE
TURKEYS.

Pure-bred, for sale. Toms \$3.00; Hens \$2.50
Miss MARGIE SIZER, Chilesburg, Va.

PURE BRED

M. B. TURKEYS,
B. P. ROCKS,
S. C. WHITE LEGHORNS.
C. T. JOHNSTON, Beaver Dam, Va.

N. B. TURKEYS,
EMDEN GEESSE,
PEKIN DUCKS,
B. P. R. CHICKENS.

I have been in business for 13 years. My birds are high bred and give satisfaction which I guarantee.
Route 1, CHARLIE BROWN, Cartersville, Va.

MAMMOTH BRONZE TURKEYS.

Pure-bred, Finest individuals; May hatched Toms weighing from 20 to 30 lbs.; price \$4.50; hens, \$3.50, f. o. b. here, cash with order. For further particulars write to J. EDGE FARIS, Red Hill, Va.

MAMMOTH
BRONZE TURKEYS

Best strain in State: Toms for sale; bred from 45 lb. gobbler. J. Z. Johnson, Beaver Dam, Va.

A FINE LOT

MAMMOTH BRONZE TURKEYS for sale. First orders get best birds. Apply to R. E. CREE, Crezet, Va.

White Holland Turkeys

and PLYMOUTH ROCK COCKERELS.—J. A. CLARK, Malvern Hill, Va.

LIVE STOCK FOR SALE.

A beautiful cream colored mare 15½ hands high, weight about 1,000 lbs. rides well, also gentle driver, perfectly reliable in all harness. Compactly built and easy to keep. Will sell cheap. She is six years old and a nice ladies' driver.

Several 15-15 GRADE ANGUS Bull Calves ready for service—will make fine bulls for grading up a herd.

A fine lot of thoroughbred O. I. C. pigs, both sexes, at reasonable prices.

BULL CALVES out of Shorthorn Cows, by Angus Bull.

Several registered Angus bull and heifer calves.

S. L. Wyandotte Eggs, \$1 for 15.

W. M. WATKINS & SON Prop's, Saxe, Va.

Muscovy Ducks.

Very fine large Muscovy Ducks, \$2.50 per pair. Also a few White Plymouth Rock Cockerels choice brood. Mrs. S. Y. GILLIAM, Church Road, Va.

Homer Pigeons,

Bred of choicest selected stock from Plymouth Rock Squab Co., \$1 per pair.

C. DE BRUYN KOPS, Wake, Va.

WHITE HOLLAND TURKEYS.

young toms \$3.00. One old tom \$5.00. Eggs in season from White Holland Turkeys, White Plymouth Rocks and S. C. Whites Leghorns.—G. W. MOSS, Guilneys, Va.

**BLACK REGISTERED
PERCHERON STALLIONS.**

BRIILLANT MONARCH JR., good breeder, superiorty, quality and symmetry, 16½ hands, 15 years old, sound, clean-cut head and neck and heavy flat bone; can't use him longer. Two Colts, 2 years past, bred by above, well grown, good style and heavy, flat bone. Prices right to an early purchaser. Thos. R. Smith, Lincoln Loudoun Co., Va.

**Registered
PERCHERON STALLION.**

SULTAN 34906 for sale; will be 3 years old April next, weighs over 1,500 lbs black in color, sound fine form and style, and all right. Will sell cheap for quick sale. Address: F. B. ALBERT, Roanoke, Va., R. F. D. No. 4.

**PURE BRED
PERCHERON STALLIONS**

for sale at reasonable prices; as good as can be found anywhere; especially desirable for our Southern States as they are acclimated; no risk of disease by purchaser.

D. T. MARTIN, Salem, Va.

2 REGISTERED**Saddle Stallions**

Bred by CHESTER DARE 10, out of dam by ON TIME 7½; one a bay, 3 yrs. old, 15½ hands high, and the other a sorrel, 1 yr. old. Write for prices, description and photographs.—HIGGINSON BROS., Danville, Ky.

**Saddle Stallions, Jack
Shorthorns, Angus, Jersey S**

FOX HOUNDS, S. C. BROWN LEGHORN and BARRED PLYMOUTH ROCK Fowls.

J. D. STODGHILL, Shelbyville, Ky.

it will hold for all time to come; because the sea, air, land and sky have all combined to make it so, naturally, and man is doing his part artificially; and when nature and art have both performed fully their part, this Eastern Seaboard Section of Virginia, will surely "blossom as the rose" both in summer and in winter.

If the general farmers of the Old Dominion would make as rapid progress as the truckers have made; if as much care, study, attention and skill was applied to stock and general farming, the old State would come out with a bound to the front seat.

With every variety of soil and climate, within her borders, with coal, iron, cotton, tobacco and timber in inexhaustible quantities; with fish, oysters, claims and crabs—an inexhaustible supply of valuable sea food; with long growing seasons and short mild winters; with the markets of the United States and of the world easily, cheaply and quickly accessible, there is no good reason why the development of the State should not be rapid, substantial, and, in fact, remarkable.

If the excellent advice and instruction of the Southern Planter and other leading, reputable and recognized farm Journals, should be followed by a few farmers in each section or county in the State, the "heaven" would soon penetrate the entire lump.

With the steadily lessening supply of labor, must surely come improved machinery, and improved methods. With the steadily increasing price of meat, must come improved stock, else we be caught between the "upper and nether millstone" of "supply and demand" and pay the penalty.

We are paying it already. We pay tribute to the hay growers, the pork and beef raisers, the butter and cheese makers, and even to the corn-growers of the West and Northwest.

This we do while millions of acres of southern soil, lie uncultivated; and millions of other acres raise a half crop. The same methods or lack of methods applied to banking, railroad-ing, manufacturing, or any other business enterprise, would ruin every individual engaged therein, in less time than two years.

If the farmers of the South can exist and still violate all the laws of political economy, what could they not do if they pushed their work as intelligently and as energetically and as thoroughly as the business man pushes his.

There is one good sign on the horizon. Thousands of people who have flocked from the Southern farms to the Southern cities are turning their faces forward again, and there is a great longing to get back on to the farm. The Prodigals and boys are anxious to return. It is a good sign. Let the exodus from city to farm begin.

A JEFFERS.

Don't get Angry

with your razor. It has a temper of its own. It will work well if you use

WILLIAMS' SHAVING SOAP

Sold everywhere. Free trial sample for 2-cent stamp. Write for "The Shavers Guide and How to Dress Correctly."

The J. B. Williams Co., Glastonbury, Conn.



pedigree With each Imported Jack. Come and see me or write for prices I can please you. 2 JOE E. WRIGHT, Junction City, Ky.

KENTUCKY JACK FARM.

A fine lot of big black well-bred KENTUCKY JACKS and IMPOR-TED SPANISH JACKS selected by me personally from the best breed of Jacks in Spain. We furnish a certificate of

**KENTUCKY JACKS and STALLIONS.**

100 head Jacks, Jennets, saddie and Trotting stallions for sale. Prices reasonable. Farm 4 miles from city, on the Inter-urban Line.

J. F. COOK & CO., Lexington, Ky.

Branch Barn, Marion, Kansas.

**JACKS, JENNETS and STALLIONS.**

Fine JACKS a Specialty. 3 to 5 years old past; write for what you want. Send 2c stamp for Catalogue.

W. E. KNIGHT & CO., Nashville Tenn., R. F. D. 5.

RARE BARGAIN IN HERFORDS

IF TAKEN AT ONCE, GOOD REASONS FOR SELLING.

BELLE DONALD 47th, calved June 22, 1904; sire Beau Donald 39th, dam Belle Donald 46th.

INEZ, calved August 10, 1903; Sire Van 102688, dam Actress 7th, 115138

LADY OF ENGLISH 161317, calved Mar. 2, 1903; sire Verne 129627, dam Gladys 97042

PRINCESS DONALD calved Aug. 20, 1904; sire Beau Donald 38800, dam Princess R. 10th.

IONE 136298, calved Oct. 27, 1901; sire Mar-maduke 90083, dam Irene 90767.

ACTRESS 7TH, calved Aug. 1, 1900; sire Actor 32, 5923, dam Juno 6842

PANSY 90772, calved March 20, 1899; sire Montcalm 71407, dam Peerless 38361.

PRINCESS R. 9TH 142711, calved Jan. 2, 1902; sire Prince Rupert 79539, dam Lily Princess 28720.

PRINCESS R. 12TH 142714, calved Jan. 5, 1902; sire Prince Rupert 79539, dam Lily P. 2d of P. 65887.

PRINCESS R. 7TH 190470, calved March 11, 1901; sire Prince Rupert 79539, dam Florence 2d 65883.

All of breeding age have been served to Rex Premier 145572, whose show record as a calf is first at Missouri State Fair, first Hamline, Minn., and first at Kansas City, Royal.

The above are all choice individuals. Every animal guaranteed. They represent the very best Hereford blood, but this will not be considered in pricing them for prompt acceptance.

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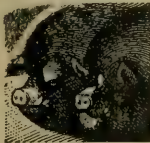
ELKTON STOCK FARM, FOREST DEPOT, VA.

College of Agriculture

... AND ...

Experiment Station,
BLACKSBURG, VIRGINIA.

We are
taking orders
for Fall
delivery of



Berkshire Pigs

The litters this Fall are among the best we ever had and we can offer some choice pigs at very reasonable prices.

We have decided to reduce our stock of

DORSETS

and offer a few ram lambs and several ewes for sale. For further information apply to J. R. FAIR, Agriculturist.

WALNUT GROVE FARM,

SHAWSVILLE VA.

Orders now taken for pure bred

BERKSHIRE PIGS.

to be delivered after December 1st. None but the best will be shipped, others go to the pen. One two year old Hereford Bull, registered, for sale, a perfectly formed animal, and as well bred as America's best. Address all communications to W. J. CRAIG, Mgr., Shawsville, Va.

GLENBURN

BERKSHIRES.



*In this herd are twelve royally bred IMPORTED animals. Also selected American bred stock. Our IMPORTED boars Hightide Royal Victor and Loyal Hunter won first at Eng. Royal and Va. State Fairs, respectively. A splendid lot of pigs of gilt edged breeding now ready for shipment. Dr. J. D. KIRK, Roanoke, Va.

BERKSHIRE BOARS.

I offer some exceedingly choice young boars for sale; by Imported Danesfield Tailor, 76490 and out of Biltmore bred sows. It will be hard to find better or cheaper stock

HENRY WARDEN, Fredericksburg, Va

Berkshires.

No sows for sale at present. A few very fine 6 months Boars, of excellent quality and breeding. Pure Biltmore blood only, in my herd.

Pair 8 months rabbit BEAGLES. Lowest price \$7 each, \$13 pair.—ROBERT HIBBERT, Charlottesville, Va.

Berkshires.

We offer some Royal bred pigs from Lissy of Biltmore, Hurricane, 4th of Biltmore and Hightiere choice of Biltmore, at moderate prices to get them into good herds.

We also have a rattling lot of fine Duroc Jerseys, young boars and gilts.—B. E. WATSON, Stuarts Draft, Va.

COTTON CONVENTION AT NEW ORLEANS.

New Orleans, Dec.:—If the plans of Pres. Jordan of the Southern Cotton Association are fulfilled, the mass convention of the association to take place in New Orleans, Thursday, Friday and Saturday—Jan. 11, 12 and 13, will be the occasion for one of the most striking celebrations in the annals of the cotton industry ever held in the South, for after a year of unprecedented and continuous victories, the Southern cotton planters will meet for the purpose of more closely welding their organization and to discuss and decide upon important questions affecting the welfare of their industry.

Organized eleven months ago at New Orleans by a monster assembly of over 3,000 farmers, merchants and bankers, the Southern Cotton Association has proved itself a factor of national and inter-national power and will yet give to the farmers still further advantages to which their position entitles them. "One of the chief features to be emphasized is the continued holding of the balance of the unsold crop for higher prices, so as to average the present crop for as near 12 cents as possible, and this can be done only by selling at 15 cents."

"We must do this and we must discuss other matters of great importance under the following general heads:

"The advisability of speedily bringing about direct trade relations between the spinners of the world and the cotton producers.

"The importance of extending the work of the association as rapidly as possible throughout the cotton belt, so as to make the work absolutely effective. "The imperative need of securing facilities for handling the crop in the South, by the erection of standard built warehouses where cotton may be weighed and classified by expert managers and the receipts underwritten, so as to make them negotiable in any financial center or where they can be bought by exporter or spinner and tendered for delivery of cotton at such time as it may be needed for consumption. In this way the crop can be marketed slowly and the supply regulated to meet the legitimate demand of spinners. This plan would tend to at once limit the range of speculation, avoiding the present wide fluctuations that are injurious both to the producer and spinner and place the future handling of cotton on a sound safe and conservative basis.

"The securing from Congress of an appropriation for the immediate purpose of sending out properly selected commissioners to foreign countries in the interest of extending to such foreign countries the use of American cotton and cotton goods. This I believe to be the true solution of the cotton problem of the future and in

Poland China Pigs

Some fine ones, young sows bred, young boars and pigs. No better breeding in the United States. My herd boars have been sired by J. H. Sanders, Lookmeover, Perfect 1 Know, Proud Perfection, Corrector and High Roller, the greatest prize winners of the breed—my sows have been as carefully selected.

RED POLLED CATTLE. Fine good young bulls. Will sell a few cows and heifers. ARROWHEAD STOCK FARM, Charlottesville, Va., SAM'L B. WOODS, Prop'r.

POLAND CHINAS



with the business hams. The best to be found at farmer's prices. Herd headed by two great Boars. The Sows are great producing matrons, being bred from great producers. Boars ready for service. Glits open and bred. Fall pigs that are dandies. Young M. B. Toms (about 20 lbs.) at prices that will move them. A. GRAHAM & SONS, Overton, Albemarle Co., Va.

PURE BRED POLAND CHINAS.

2 fine young boars ready for service; 3 beautiful sows ready to breed; Several litters of choice pigs. Also an 11 months old Guernsey Bull whose dam tested 10 lbs. butter in one year.

F. M. SMITH, Jr.

R. F. D., 4, Charlottesville, Va.

Registered P. China Berkshire

C. whites. Large strain All ages mated not akin 8 week pigs. Bred sows, Service boars, Guernsey calves, Scotch Collie pups and poultry. Write for prices and free circulars. P. F. HAMILTON, Cochranville, Chester Co. Pa.



HIGH CLASS

Poland Chinas.

Sunshine and Perfection Strains. Boars ready for service, Glits bred for Spring litters. Choice Pigs of both sexes from 4 to 6 months old, mated for breeding, that are no akin. All eligible to Registry and first class. Prices low, write stating what age is wanted.—E. T. ROBINSON, Lexington, Va.

3 BERKSHIRE

broad sows and pigs; sows weighs about 200 lbs; can ship Feb. 1st; 1 Poland China brood sow, 1 Jersey Bull, Calif. 4 mos. old, W. P. ROCKE fow and a 300 ggg incubator, in perfect order, used twice. Prices of above very reasonable. B. F. AVERILL, Howardville, Va.

Berkshire Pigs

of the best breeding, for sale; fine individuals, prices right. Also M. B. TURKEYS, a few R. P. ROCKE and S. C. B. LEBRON Cockrels for sale. J. T. Oliver Athens Level, Va.



ESSEX PIGS and

Southdown Sheep

I have some choice Essex Sows 4-6 mos. old and pigs for spring delivery also some choice Southdown Ewe lambs for Jan. and Feb. delivery. L. G. JONES, Tobaccoville, N. C.

STOP! LOOK!! LISTEN!!!

Duroc Jersey Pigs,

the leading Western winning strains. They are the coming hog and if you will drop us a card we will tell you why.

MAMMOTH BRONZE TURKEYS, heavy weights, unexcelled in type and plumage and of the very best blood on the continent.

BARRED PLYMOUTH ROCKS, the first of the utility breeds, unsurpassed as Layers, and ahead of all as a table fowl. We can furnish high-class birds bred from the most noted strains and fit to start you right, or put you right if you started wrong.—**LESLIE D. KLINE,** Vaucluse, Virginia.

Salt Pond Herd. DUROC JERSEYS.

PAUL J. 21620, son of Oom Paul, head of herd. Sows by Red Rover, Jumbo, Longfellow and other noted hogs. A choice lot of Pigs at reasonable prices, ready to ship.

S. A. WHITTAKER, HOPESIDE, VA.

CHOICE**O. I. C. PIGS**

Eligible to registry and first class Bore ready for service, \$10.00 each, 3 mos. pigs either sex, \$5.00 each. Pollard China pigs eligible to registry, \$5.00 each. None but good ones shipped.—A. G. HUTTON, Lexington, Va.

Chester Whites

Full pigs, 6 to 8 weeks old, \$5 each, now ready for delivery; 3 Bore ready for service \$7 each; 1 Extraordinary Gilt, \$25.

S. M. WISECARVER, Rustburg, Va.

Dorsets

Woodland Farm has a few of the best rams it has ever offered. Wool is an item worth considering this year, and our rams are exceptionally heavy shearers, besides having excellent mutton forms. J. E. WING & BROS. Mechanicsburg, O.

1 Polled Durham, 1 and Shorthorn 1

Calif for sale. Good individuals; good pedigrees; 5 Poland China Sows.—CHAS. M. SMITH, Rogersville, Tenn.

The Springfield Shorthorns

offers for sale 4 HEIFER CALVES, two red and two roans, and 3 NICE BULL CALVES; also POLAND CHINA pigs. Pedigree furnished with all stock sold. Prices that all farmers can afford to buy to improve their stock.

Write your wants.

WM. T. THRASHER Springfield, Va.

SHORTHORNS.

From Registered Stock.

2 heifers, 5 mos. old, 1 18 mos old, 1 bull 5 mos. old, cheap if sold at once. Also some

POLAND CHINA PIGS

10 weeks old. Stock all in

good shape. Now is the time to get bargains. Write or call on A. J. S. DIEHL, Fort Republic, Va.

A FINE

SHORTHORN HEIFER

3 yrs. old next June, for Sale. In calf (due April) to pure-bred Shorthorn Bull. Price \$1.—G. B. STEPHENS, Birdwood, Alb. Co.,

that way production need not be retarded, but, on the contrary, all the cotton we can produce may be consumed in the various markets of the world.

"We must consider also, at the New Orleans convention, the question of immigration and character of immigrants desired in the South as well as the countries which would be the most apt to furnish the best class of such desirable immigrants.

"We will discuss the bringing about of closer relations between the farmer and the banker to the end that we may as rapidly as possible be rid of the present iniquitous credit system and gradually induce our people to become depositors rather than borrowers.

"We must discuss the necessity for the gathering of statistics relating to the consumption and manufacture of cotton by the United States Department of Agriculture and the issuance of such reports jointly with the crop reports and annual yield of crop and in this way put the farmer on a parity with the spinner as to information.

"No restrictions whatever will be placed on the number of delegates from any one county. In fact, we want an overwhelming attendance. Last January when the organization was given birth at New Orleans, there were over 3,000 delegates who came from all over the South. We want 5,000 to come to New Orleans for this pending mass convention.

"So that uniformity of action may be had, I have named Saturday Dec. 23, as the day when the State presidents of the Southern Cotton agricultural associations are requested to call their people together and select delegates. I would urge that the names of all delegates so selected be sent with their respective post office addresses to me at No. 920 Empire Building, Atlanta, Ga.

"One of the largest auditoriums in the city of New Orleans has been tendered to the Association by the New Orleans Progressive Union and Mr. Henry Mayo, secretary of the Union has advised that the New Orleans committees have been appointed and already are at work to see that no details are lacking for the convenience of the delegates and those desiring to secure apartments or hotel accommodations in advance should address Mr. Mayo.

"The convention will close Saturday Jan. 13 and as the meeting at Hot Springs, Ark., to elect officers for the coming year will take place Tuesday, January 16, delegates to the Hot Springs meeting may come to the New Orleans convention, remain over for Sunday and leave for Hot Springs that night or Monday.

"All the railroads in the South have been asked for a rate of one fare for the round trip and this rate no doubt will be authorized and announced in due time."

REGISTERED.

AYRSHIRES.

To close an estate, I offer for sale, 1 bull, 4 Cows and 2 heifers of above breed.

Write for further information to

DR. WM. C. JOHNSON, Ex'r.
109 Record St., Frederick, Md.

GROVE FARM

R. F. D. Cockeysville, Md.

First Prize Herd

Guernseys

at Timonium and Hagerstown, Maryland. (only place HERD Shown).

BULLS ONLY FOR SALE

OUR BERSKSHIRES.

were unbeaten at Timonium (Baltimore County), York Pa., and Hagerstown, Maryland, the only places shown in 1905. PIGS OF BOTH SEXES for sale.

C. & P. Telephone and Telegraph, 431 Lutherville, Md.

JAS. McK. MERRYMAN.

3 YOUNG BULLS

from 6 mos. to 18 mos. old, each from cows that have given over 2 lbs. of butter a day, sons of Coquette's John Bull at \$50.00 each. Their equals cannot be bought in the North for less than \$300.

Heifers and Heifer Calves for sale at reasonable prices.

A young Bull, son of Coquette's John Bull, which I sold, took 2d Premium in competition with some of the finest Herds in the country at the Lynchburg Fair—A. R. VENABLE, JR., Box 147, Farmville, Va.

Swift Creek Stock and Dairy Farm

Has for sale a large number of nice young registered A. J. C. C.

JERSEY BULLS And HEIFERS.

None better bred in the South. Combining closely the most noted and up-to-date blood in America. Bulls, 4 to 6 months old, \$25. Heifers, same age, \$35. POLAND CHINA PIGS, \$5 each. Send check and get what you want.

T. P. BRASWELL, Prop., Battletown, N. C.

PURE-BRED, REGISTERED.

Young Stock

for Sale: 1 JERSEY BULL, 2 JERSEY COWS, 1 BERSKSHIRE BOAR; Also several GRADE CATTLE; Best Strain and in fine condition; Prices right.

J. N. SAUNDERS, Brandywine, Va.

A PURE-BRED

GALLOWAY BULL CALF

or yearling wanted at farmers' price. W. ALDRICH, Jefferson, Va.

TWO PURE-BRED

HERSFORD BULLS

aged 5 mos. and 4 yrs., respectively; Price \$40 and \$60.—E. J. HARRISON, Flanagan Mills, Va.

Biltmore Farms,

R. F. D. No. 2.

Biltmore, North Carolina

THE HIGHEST STANDARD

—OF—

JERSEY BULLS

AND

HEIFERS.

Also the best
type of young

Berkshire Boars

AND

Sows

For sale at
all times.

Write for full particulars.

THOROUGHbred

Berkshire Boars,
Jersey Bull Calves,
Dorset Buck Lambs.

Sire of Calves, FLYING FOX 65456, son of
Flying Fox who sold for \$7,500 at the Cooper
sale 1902.

All stock in best of condition and
guaranteed as represented.

F. T. ENGLISH, Centerville, Md.

ELLERSLIE FARM—

Thoroughbred Horses

AND SHORTHORN CATTLE,
Pure Southdown Sheep
and Berkshire Pigs.

FOR SALE, R. J. HANCOCK & SON,
CHARLOTTESVILLE, Va.

Hereford Bulls

Registered young stock for sale. HIGH
GRADE HEREFORDS of both sexes; also,
WANTED some high grade SOUTHDOWN
EWES. WM. C. STUBBS, Valley Front Farm,
Sassafras, Gloucester county, Va.

WASHINGTON NOTES.

Reports on Free Seeds.

Representative Morris Sheppard, of
Texas, has introduced a bill in the
House of Representatives, requiring
the Secretary of Agriculture to print
the replies received from the distribu-
tion of free seeds. In speaking of
the purport of his bill, he stated that
it was not his intent to increase ex-
penses on account of printing an
enormous document, but on the other
hand, he wanted to show the small
amount of printing involved.

It would not necessitate more than
two or three comparatively short
sentences in the report of the Secre-
tary of Agriculture," he said, "to
meet every requirement of the bill.
The impression is created that the bill
requires an immense amount of print-
ing. Hardly five distributives out of
every hundred, if, indeed, that many,
report results of experiments with the
free vegetable seeds. The few re-
ports that are made are so unneces-
sary that they are of no practical
benefit and the Department of Agri-
culture accords them practically no
attention. In fact, the printed re-
quest for a report on each package
has become a mere useless and empty
form. In very few words the Secre-
tary of Agriculture could state the
number of the reports, and in very
few words he could indicate their
general nature. In no way could the
utter uselessness of the practice be
more completely demonstrated, and it
was with this purpose that I intro-
duced the bill."

Good Roads in Congress.

The Latimer-Brownlow Good Roads
bill, which provides for an expenditure
of \$24,000,000 on the nation's roads in
the next three years will be one of
the important measures before Con-
gress this session. The bill stipulates
that one-half of this amount is to be
furnished by the states and territories
and the other half by the federal gov-
ernment.

The officers of the National Good
Roads Association are now in Wash-
ington conferring with Congressmen
on this bill in an endeavor to enlist
their aid in the cause. President
Moore in speaking of the bill said:

"There is no more important bill
before Congress to-day. Sixty million
dollars are spent each year on the
roads of the country now, and half
of this amount is wasted through ex-
travagances caused by lack of engi-
neers and superintendents with sci-
entific knowledge of road building. Of
the thirty-three civilized countries of
the world, the United States is the
only one which does not appropriate
money for the maintenance of its
roads.

"Germany has 32,000 miles of im-
perial roads, England 35,000, and
France 38,000. The United States has
not a mile, excepting the roads in
cemeteries and parks. In January,

we shall open headquarters in Wash-
ington. I have just completed a 32,-
000-mile tour over the combined Chi-
cago and Northwestern and the Union
Pacific systems, have traversed twelve
states and held forty-four conventions.
Everywhere the movement is meeting
with the hearty support which it de-
serves."

Smells.

The fourth Assistant Postmaster
General has received complaint from
Little Hocking, Washington County,
Ohio, that the rural carrier of a route
in that vicinity is dealing in polecat
skins, making collections of the hides
at the same time that he collects and
delivers mail. The result of this prac-
tice is to impart a disagreeable odor
to the mail. The department is asked
to require the carrier to give up his
side line or retire from the service.
The matter has been given attention
by the Department.

Cotton Controversy.

A resolution has been introduced in
the House of Representatives by Rep-
resentative Lovering, of Massachu-
setts, calling attention to the discrep-
ancy between the cotton crop estimate
of the Department of Agriculture and
that of the Census Bureau, and provid-
ing for the making of a new report

DEVON HERD. HAMPSHIREDOWN FLOCK
ESTABLISHED 1884. ESTABLISHED 1880.

DEVON CATTLE

BULLS and HEIFERS,
Hampshire Down Sheep,
RAMS and EWES.

ROBT. J. FARRER, Orange, Va.

ROSE DALE HERD....

Aberdeen Angus

Top notch young registered Bulls our spe-
cialty. A few heifers to offer with bull not
skin. We send out none but good individ-
uals. Correspondence and inspection of herd
invited. ROSE DALE STOCK FARMS Jef-
fersonston, Va.

MONTEBELLO HERD

Aberdeen Angus Cattle.

FOR SALE—Registered Bull Calves
from 3 months old up.

L. H. GRAY, Orange, Va.

Aberdeen Angus.

Herd Bull, TERRACE LAWN, REX 63
846, or sale; An Extra good breeder, quick
and nice to handle, the low down, blocky
kind.

J. TABB JANNEY, Van Cleaveville, W. Va

AGENTS WANTED

to sell self-wringing mop and scrub brush in ev-
ery town. No competition. Every woman buys.
\$10 day easily made. For terms. Address R.
T. FREEMAN, 16 E. Main St., Richmond, Va.

WOODSIDE BERKSHIRES.

Everything Shipped on Approval.



All of our pigs old enough to ship are sold, and we are now booking orders for Jan. and Feb. delivery, for pigs sired by our two great boars, LUSTRE'S CARLSLE OF BILTMORE, No. 72657, and MASTER LEE OF BILTMORE, No. 73778, and out of sows weighing from 200 to 600 lbs. in only fair breeding condition. LUSTRE'S CARLSLE was 2 years old as June 4th, weighs 730 lbs. and is as active as a 6 months old pig.

He is sired by ROYAL CARLSLE No. 68318, dam TOPPER'S LUSTRE, No. 54923. MASTER LEE was 1 year old on June 4th and now weighs 555 lbs. He is sired by LOYAL LEE 2ND, OF BILTMORE, No. 65632, dam IMPORTED DANESFIELD MISTRESS, No. 76327. LOYAL LEE 2ND is undoubtedly the champion Berkshire boar of the world, having more prizes to his credit than any other boar living or dead. DANESFIELD MISTRESS is a daughter of DANESFIELD HUNTRUSS, No. 68174, who has an unbroken record of first prize at all the leading English shows, with one exception, and then being defeated by her daughter DANESFIELD MISTRESS. We consider MASTER LEE one of the greatest young sires in America, and expect to prove it in the showings next fall. In order to show our confidence in what we offer and insure satisfaction to our customers, we will ship pigs ON APPROVAL, and if they are not entirely satisfactory in every respect, you can return them at OUR EXPENSE. In other words you can see the pigs before you buy. Can always furnish pigs not skinned. We are offering a few choice gilt broods to MASTER LEE for April farrow. For full particulars, Address, WOODSIDE STOCK FARM, R. S. Farish, Prop., Charlottesville, Va.

Free \$1.00 Coupon

ENTITLING ANYONE WITH
RHEUMATISM

to receive prepaid, FREE TO TRY, a regular Dollar pair of Magic Foot Drafts and valuable new book (In colors) on rheumatism.

Name

Address

Only one free pair to one address.

If you have rheumatism cut out this free dollar coupon and send it to us with your name and address plainly written on the blank lines. Return mail will bring you—free to try—a Dollar pair of the famous Magic Foot Drafts, the great Michigan cure for rheumatism. They are curing very bad cases of every kind of rheumatism, both chronic and acute, no matter how severe. They are curing cases of 30 and 40 years suffering, after doctors and baths and medicines had failed. Send us the coupon to-day. When the Drafts come, try them. If you are satisfied with the benefit received—then you can send us One Dollar. If not, we take your simple say so, and the Drafts cost you absolutely nothing. Aren't they worth trying on that basis? Our faith is strong that they will cure you, so cut out and send the coupon to-day to Magic Foot Draft Co., 136V Oliver Bldg., Jackson, Mich. Send no money—just the coupon.



on January 10, 1905, together with the methods used in compiling it.

The statement is made in the resolution that the growing cotton report published by the Department of Agriculture on December 4, indicated a total production for the season of 1905-06 of 10,167,000 bales of 500 pounds each; the census returns of the cotton ginned up to December 1, shows that in North Carolina, South Carolina, Georgia and Oklahoma, the yield for the entire season, estimated by the Department of Agriculture was more than had been ginned; the resolution undertakes to show that the estimate of the Department of Agriculture is plainly an underestimate, thereby damaging the cotton industry of the United States. It also directs the Secretary of Agriculture to proceed immediately to collect such data as may in his opinion be necessary for a more correct estimate of the season's crop, and to publish the same on January 10, 1906, together with a complete statement of the method by which the estimate is arrived at and the details of the various reports composing said estimate.

Chicken Raising.

Almost any broody hen can be made to sit if carefully handled. She should not be carried by the legs with her head hanging down, but with her breast resting in the palm of the hand. Transfer should be made at night, and the nest into which she is put kept dark for twenty-four hours. Lice is a great enemy to the sitting hen and measures should be taken to eradicate them, once they make their appearance.

When it is desired to place incubator chicks to a broody hen, two things are essential: first, the hen should be free from lice, and second, care must be taken not to disturb her. In the evening two or three chicks, at least thirty-six hours old, must be placed under her from behind, care being taken not to excite her, lest she step on them. At least one chick of each color should be given her, for hens are apt to kill chickens of another breed, color, or size than those they have already adopted. The fol-

MUSIC LESSONS FREE IN YOUR OWN HOME.

A wonderful offer to every lover of music, whether a beginner or an advanced player.

Ninety-six lessons (or a less number if you desire) for either Piano, Organ, Violin, Guitar, Banjo, Cornet or Mandolin will be given free to make our home study courses for these instruments known in your locality. You will get one lesson weekly, and your only expense during the time you take the lessons will be the cost of postage and the music you use, which is small. Write at once. It will mean much to you to get our free booklet. It will place you under no obligation whatever to us if you never write again. You and your friends should know of this work. Hundreds of our pupils write: "Wish I had known of your school before." "Have learned more in one term in my home with your weekly lessons than in three terms with private teachers, and at a great deal less expense." "Everything is so thorough and complete." The lessons are marvels of simplicity, and my 11-year-old boy has not had the least trouble to learn." One minister writes: "As each succeeding lesson comes I am more and more fully persuaded I made no mistake in becoming your pupil."

We have been established seven years—have hundreds of pupils from eight years of age to seventy. Don't say you cannot learn music till you send for our free booklet and tuition offer. It will be sent by return mail free. Address U. S. SCHOOL OF MUSIC, Box 144, 19 Union Square, New York City.



A GREAT DISCOVERY.

DROPSY

CURED with vegetable remedies, entirely harmless, removes all symptoms of dropsy in 10 to 30 days; 30 to 60 days effects permanent cure. Trial treatment furnished free to every sufferer, nothing falser. For Circulars testimonials and free treatment, write

Dr. H. H. Green's Sons, Box H, Atlanta, Ga.

SUPERIOR STONE POSTS.

Mr. B. F. Stultz has an ad. in another column, to which attention is asked. He is offering his molds for making concrete fence posts. Look up the ad. and send for descriptive circulars.

When corresponding with our advertisers, always mention The Southern Planter.

lowing morning she may be expected to mother as many as are given her.

The first week is the most critical period in the life of the chick. Trouble is most likely to be caused by chills. The first few weeks' care is responsible to a great extent for its success or failure eight months later. Feed, regularity of feeding, cleanliness and plenty of grit and water are all important matters. It is advisable to let the chicks have access to green feed at all times. In order that best results may be attained, the Connecticut Station deems it advisable that outside of the regular feeding times care should be taken that chicks be kept hungry, or at least sufficiently so to be eager to eat when fresh food is offered them.

The United States is not the only country to suffer from the small apple crop, as Consul-General Holloway, of Halifax, reports that the shipments of apples from Halifax to London, this season have amounted to 126,966 barrels as compared with 238,664 barrels, the average maintained during the last ten years. The crop this season, he states in a report, will turn out less than the average, though shipments to date are not far behind the record at the corresponding date last year. Apples have been coming forward freely. Ribstons and Kings have turned out good, but Baldwins are short, and consequently shipments after the new year, when the harder fruit is due, must fall off. The prices ruling this season are as high as any attained during the past ten years.

GUY ELLIOTT MITCHELL.

REFORMATION OF A KIND.

"Yes, kind lady, my four years' term expires in two weeks, then when I get out of the pen I am going to reform and start a little cigar-store. I kin buy one for six hundred dollars. Have I friends what'll advance the money? Naw, I don't need them fer that little sum; I kin steal that much in two nights."—December Lippincott's.

ANTICIPATED REGRET.

Her husband had died very suddenly, and her friends were calling to comfort her. She listened very attentively and seemed to be more cheerful, but suddenly she cried out, "All you've told me is very true, but I'm sure I shall never love my second husband as much as I did the first."—December Lippincott's.

NO CAUSE FOR ALARM.

The Young Man (with some embarrassment)—There is one question you haven't asked me yet, sir. You haven't wanted to know whether or not I think I can make a living for your daughter.

The Old Man—That isn't necessary, Henry. She'll see that you make the living, all right, if she's at all like her mother—and I think she is.

There is no Money in Raising Hogs

If you run the risk losing your herd by disease.

HOGS ARE THE BEST PAYING PRODUCT ON THE FARM if you get them safely to market.

DR. JOS. HAAS' HOG REMEDY IS THE BEST HOG MEDICINE ON EARTH. It is a preventive, and a cure. It makes better pork; it saves feed and brings the animal to maturity in less time. It makes the feed stick to the ribs.

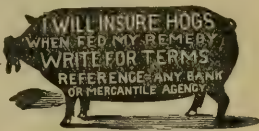
INSURE YOUR PROPOSITION. I R. JOS. HAAS WILL INSURE YOUR HOGS against disease AND PAY FOR ALL THAT DIE, if his Remedy is used according to directions. Write for particulars.

Dr. Jos. Haas' Revised "Hogology" free to readers of this paper, write today. Prices of Dr. Jos. Haas' Hog Remedy: 25 lb. can \$12.50, half can (12 1/2 lbs.), \$6.50, prepaid; Packages, \$2.50, .25 and 50 cents each. Note genuine without my signature on package or can label.

DR. HAAS' REMEDY IS NOT AN EXPERIMENT.

Its Record is 30 years of unexampled success.

DR. JOS. HAAS, V. S.
INDIANAPOLIS, - - INDIANA.



BERKSHIRES.
GUERNSEYS.
JERSEYS.

Young Boars. Sows to farrow February, and March; Pigs, single, pairs and trios not akin.

Several fine young Bulls and Heifers. Bargains at our prices.

Heifers in calf and some nice yearlings. Better inquire about them.

B. P. ROCKS.

A fine lot of early hatched cockerels.

BRONZE TURKEYS, BROWN CHINESE GESE, PEKIN DUCKS, and a few Drakes and pairs of domesticated **WILD MALLARD DUCKS.** PRICES LOW.

M. B. ROWE & Co., - - Fredericksburg, Virginia.

"SWELLDOM" among BERKSHIRES.

Imported KINGSTONE POETESS, Imp. LUSTRE'S BACHELOR, Imp. INFANTER (World's Fair Winner), Imp. ELMA CLERE, Imp. LOYAL MASON, Imp. SIR JOHN BULL 1st, Imp. SIR JOHN BULL 2nd, and a host of others, including the now fashionable PREMIER blood which swept the blue ribbons at the World's Fair, at St. Louis. I refer you to Mr. F. S. Springer, Secy. Am. Berk. Assn. Springfield, Ill., as to whether I own the above strains and fully 20 more. All sizes and sexes for sale cheap. **TOWELS PEKIN DUCKS**—"Whoppers;" **PLYMOUTH ROCK, S. C. B LEIGHORN Cockerels, PIT GAME Pullets** and hens. **THOS. S. WHITE, Fassett Stock & Poultry Farm, Lexington, Va.**



SIR JOHN BULL.

ORGANIZED 1832.

ASSETS, \$1,056,360.54

Virginia Fire and Marine

Insurance Company of Richmond, Va., Insures Against Fire and Lightning.

All descriptions of property in country and town, private or public, insured at fair rates, on Accommodating terms. **AGENCIES IN EVERY TOWN AND COUNTY.**

W. H. PALMER, President.

E. B. ADDISON, Vice-Pres't.

W. H. McCarthy, Secretary.

XMAS DINNER AFOOT.

Michael had been doing his Christmas shopping and was returning to his home, several blocks from the terminus of the street-car line. He was burdened with numerous parcels and packages, which were continually slipping from his grasp. The one that caused him most annoyance was the Christmas turkey, which, stuffed head-downward in a large paper bag, had penetrated the bottom of its dampened envelope and seemed all legs and neck, and simply would not adjust itself to the other bundles. Finally it burst through the bag and dropped to the ground, and Michael after several ineffectual efforts to arrange it conveniently, sat down on a doorstep and wiping his perspiring brow, observed with feeling, "Begorra, if I'd 'a' knowed this tur-key was goin' to be such a trubble I'd 'a' bought a live one an' made the dom bur-rud walk!"—Christmas Lipincott's Magazine.

DR. JOS. HAAS' PROPOSITION.

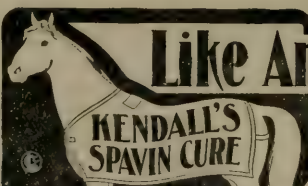
Dr. Jos. Haas, of Indianapolis, Ind., has perfected an insurance proposition which is proving popular among swine breeders and his Hog Remedy has been on the market for years, and in view of the fact that the doctor insures hogs to which it is fed, agreeing to pay for all that die, it is apparent that he has faith in its virtues. It is strictly a medicine, not a stock food. The doctor says that it arrests disease, expels worms, stops cough, regulates the bowels, purifies the blood, increases flesh and pays for itself many times over in feed saved.

His valuable booklet, called "Hog-ology" contains a full explanation of his insurance proposition. It also is replete with helpful information upon every subject connected with swine breeding and feeding. Several editions of this work have been issued. The latest one is enlarged and improved in typographical appearance. It tells about Dr. Haas' Hog Remedy. Its veterinary suggestions are especially valuable to swinememen. There is information in this booklet which has cost years of expensive experience. It is, in fact, the essence of the best information obtainable upon the subject treated. Those who mention this paper when applying for the booklet will secure it free.

ONE ON THE CONDUCTOR.

An Irishman boarded a street car and handed the conductor a rather dilapidated-looking coin in payment of his fare. The conductor looked at the coin critically and handed it back. "That's tin," he said.

"Sure, I thought it was a folve," answered the Irishman complacently, as he put the piece back in his pocket and produced a nickel.—December Lipincott's.



Like An Old Friend

You've known it many years. Older than this generation. The great promoter of clean limbed horses is

Kendall's Spavin Cure.

Used Years—Nothing So Good.

Cherokee, Kansas, April 2, 1905.

Dr. B. J. Kendall Co., Enosburg Falls, Vt.

Gentlemen:—Will you please send me a copy of your "Treatise on the Horse and his Diseases." I have used Kendall's Spavin Cure for a number of years and found nothing so good for Curb, Spavin, Ringbone, etc. I have also used two of your books till they are worn out. FRANK HILLER.

Cures Curb, Spavin, Ringbone, Splint, Sweeney, Galls, Sores, Cuts, Foot Rot, Hip Diseases, and all like ailments.

Price \$1; 6 for \$5. Greatest liniment known for family use. All druggists sell it. Accept no substitute. The great book, "A Treatise on the Horse," free from druggists or

DR. B. J. KENDALL CO., ENOSBURG FALLS, VERMONT.

LARGE YORKSHIRES.

The most prolific and profitable breed Boars fit for service. Sows and gilts in farrow, and weanling pigs for sale.

JERSEY CATTLE.

Bulls and Heifers from cows testing 18 to 23 lbs. of butter in seven days. The \$10,000 bull Eminent and Kioter of St. Lambert, Jr., at the head of the herd.

INDIAN GAME FOWLS,

the best table fowl.

WHITE LEGHORNS,

the best layers.

Prices Reasonable.

Address,

BOWMONT FARMS, Salem, Va.

FOREST HOME FARM

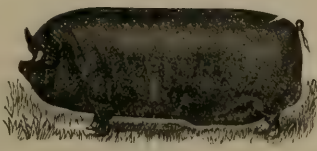
OFFERS

BERKSHIRES

Of choicest breeding and individuality. Write for what you want.

Forest Home Farm,

Purcellville, Va.



WALTER B. FLEMING, Proprietor of the Bridle Creek Stock Farm, Warrenton, N. C.

Mention The Southern Planter when writing advertisers.

We POSITIVELY GUARANTEE to breed and ship the very best strains of thoroughbred registered **LARGE ENGLISH BERKSHIRE** Hogs for LESS MONEY than any other firm in the U. S., the superiority of our stock considered. Send us your order and we will satisfy you both in price and stock.

WITH THE ADVERTISERS.

S. L. Allen & Co. are advertising the celebrated "Planet Jr." tools in this issue.

The Goodall Co. are offering the Ca-hoon Seed Sower to our readers again this season.

The American Harrow Co. is a new advertiser this month. Their Manure Spreader on 30 days' free trial is their offer.

The Ohio Carriage Mfg. Co. have several advertisements in this issue to which we invite attention.

The Ames Plow Co. starts the season's advertising this month.

The attention of our readers is invited to the advertisement of Fetzer & Co.

Morrill & Morley offer their Spray Pumps in an attractive ad. elsewhere in this issue.

The Keystone Farm Machine Co. have an advertisement on another page to which we ask attention.

The advertising of Kendall's Spavin Cure is resumed with this number.

Chas. A. Cyphers has an Incubator Announcement in another column, to which attention is asked.

The Avery Mfg. Co. is offering an attractive Threshing outfit.

The Belcher & Taylor A. T. Co. has a couple of ads. in this issue, to which attention is asked.

The Spartan Mfg. Co. makes a liberal offer on its Feed Grinder. Look up the half page ad.

Look up the ad. of the Manlove Gate Co. A splendid device is offered by this firm.

The Poultry men, Live Stock breeders, Incubator men and other Miscellaneous advertisers are out in full force in this issue. You will find advertised everything for man or beast. Kindly mention the Southern Planter when writing any of them.

IT MADE A DIFFERENCE.

Robbie's father had a man drop in to see him. After they had chatted a few minutes the guest was offered the only cigar on the table, so Robbie was sent upstairs for a fresh box. As the boy reached the top stair his father was startled to hear:

"Which kind, papa? Do you want those you smoke yourself, or the kind you give away?"—December Lippincott's.

"SUNNY HOME" ANGUS CATTLE.

We invite the attention of our readers to the advertisement of Mr. A. L. French, proprietor of the Sunny Home Herd of Aberdeen-Angus Cattle. He is booking orders now for future delivery. Some of his patrons north of the quarantine line couldn't get served last year, so he is giving all ample notice this time. Just get your order in and he will attend to the shipping before quarantine is in operation again.

Always mention the Southern Planter when writing advertisers.



Farmers Say

SLOAN'S LINIMENT

Is the Best Remedy on Earth.
Kills a Spavin Curb or Splint.
Very Penetrating. Kills Pain.
DR. EARL S. SLOAN, 615 ALBANY STREET, BOSTON, MASS.

Baron Premier 3rd 75021,



the head of our herd, was first in his class at World's Fair; weighs 900 pounds at 22 months. His dam is litter-mate to Lord Premier. 50001, selling recently for \$1,500; his sire was premier champion winner at World's Fair at St. Louis. With this great hog and a large line of both imported and American well selected sows and gilts, especially chosen to mate with him, we are actually producing and accomplishing the pleasure of breeding the most magnificent strains of BIG, LONG, WIDE, DEEP THICK-SET BERKSHIRE HOGS on short legs.

We are now offering a few bred sows and gilts and some three months

pigs. It makes no difference how fine hogs you desire to purchase, you need not go farther than

MAPLE SHADE FARM

W. H. COFFMANN, Propr., Bluefield, W. Va.

POLAND-CHINAS.



I have a limited number of Pigs by my fine Boars, Gray's Big Chief, 57077 and Victor G. 57075, and can furnish pairs not akin or related to those previously purchased. Young Boars and Sows of all ages. Send to headquarters and get the best from the oldest and largest herd of Poland-Chinas in this State at one-half Western prices. Address J. B. GRAY, Fredericksburg, Va.

GRAY'S BIG CHIEF, 57077



Syracuse Chilled Light Draft Plow

General Purpose

Both right and left hand. An easily handled plow and just the thing for light soils. Full chilled moldboard, sloping chilled landside, chilled share with shin piece combined. Index beam quickly set to take more or less land. If no Syracuse dealer in your town, write us direct. We'll send catalogue and particulars and see that you are supplied.

Syracuse Chilled Plow Co.,
SYRACUSE, N. Y.



HINTS BY MAY MANTON.

To be Made With High Or Low Neck,
Elbow or Long Sleeves.

The vogue of the princess dress is as much to be noted among the styles for little girls as among those of their elders, and exceedingly charming are some of the results. This one is eminently simple, girlish and attractive and includes all the essential characteristics, while it is so designed that there is nothing like severity found in its outlines. As illustrated it is made with the open square neck and elbow sleeves that are so well liked for dancing school parties and the like, but the addition of yoke and cuffs make it suited to after noon wear. In this instance, the material is pale pink chiffon veiling trimmed with ecru lace, but the list of possible and satisfactory things is long. The sea-



5205 Girl's Shirred Princess Dress,
8 to 14 years.

son is singularly prolific of soft, crushable materials and everything that can be shirred with success is appropriate. Such light weight wools as this one are generally liked for girls from eight to fourteen, but there are some simple silks which also are correct and again the silk muslins and the like are always charming for the party frocks.

The dress consists of waist and dress portions, which are joined invisibly at the shirrings, so giving the princess lines. The waist is made over a fitted lining, which is faced to form the yoke when high neck is used and is trimmed

MONTVIEW JERSEYS.

We have for immediate Sale bull calves sired by
Forfarshire, Marrett's Flying Fox, and Flying Fox's Rex,
three of the best Imported Jersey Bulls in America. Also several magnificently bred Heifers of the Golden Lad and St. Lambert type. Prices reasonable.

MONTVIEW BERKSHIRES.
MANOR FAITHFUL.

According to Geo. F. Weston, THE BEST BOAR THAT COULD BE FOUND IN ENGLAND by Biltmore Farms—heads our herd. He sold for \$615.00 and weighs 1100 pounds in show condition.

HER MAJESTY.

Is among our Imported brood sows. THE COUNTRY GENTLEMAN pronounced her THE BEST SOW IMPORTED BY BILTMORE FARMS and W. R. Harvey, Manager of Filston Farms, Maryland, writes that she is "The best Imported Berkshire saw in America."

If you want a great brood sow or boar, let us book your order for February pigs of above mating.

MONTVIEW STOCK FARM, (Carter Glass, Owner).
BOX 513, LYNCHBURG, VIRGINIA.

SUNNY HOME HERD
—OF—
Aberdeen Angus Cattle.

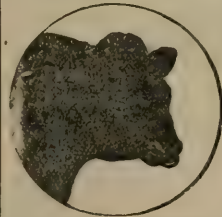
Several of our friends failed last year to quarantine, and consequently were disappointed. To save this trouble NEXT SPRING and I will ship your bull, you to spring. This has been the best year in the better than ever, and sales to match.

Send on your orders, we are ready for you.
Address: A. L. FRENCH, Propr., R. F.

order bulls until after the close of the year. In not being able to get what they G send your order NOW with BANK REF— pay for him when ready to use him next history of the Sunny Home Herd. Cattle

D. Byrdville, Va. Station Fitzgerald, N. G.,

on D. and W. Ry.



The Delaware Herd of

ROYAL ANGUS CATTLE

is not surpassed either in breeding or individual animals by any herd in the East. At the head of our herd is

PRINCE BARBARA, 68604.

the son of the great \$9,100 Prince Ito. Females of equally choice breeding. Write your wants remember, we take personal care of our cattle; keep no high priced help; incur no expense of exhibiting; all of which enables us to offer stock at equitable prices. Send for pamphlet.

MYER & SON, Prop.,

Bridgeville, Del.

The Grove Stock Farm
Holstein-Friesian Bulls.

Two 2 years old
One 1 year old
Four 6 mos. old

Will sell them cheap to make room for others.
Prices includes registry and transfer to buyer.

T. O. SANDY, Prop. Burkeville, Va.

MORVEN PARK.

The Property of WESTMORELAND DAVIS, Esq.

Large White Yorkshires.

LARGE WHITE YORKSHIRE PIGS from prize winning families for sale. Herd headed by imported boar, "Holywell Huddersfield" No. 4-50 (A. Y. C.), second prize at Yorkshire Show, England 1904. These pigs are the English Bacon breed: they are prolific breeders, economical feeders, and hardy of constitution. During the month of August the two farrowing sows, imported Sweetest Polly (A. Y. C.), gave birth to 17 pigs, and the sow imported Holywell Empress (A. Y. C.), gave birth to 14 pigs. Orders will now be received for boars and sows from these and similar litters. Also a few boars fit to head any herd at reasonable prices.

Reg. Guernsey Cattle.

REGISTERED GUERNSEYS—Herd headed by imported Top Notch, 9023 (A. G. C. C.), a son of Imported Itchen Beda advanced Reg. No. 136, assisted by Mainstays Glenwood Boy, 7607, A. G. C. C. (son of Jewell of Haddon), advanced Reg. No. 92. This herd is rich in the blood of Mainstay, Rutilla's Daughter, Imported Honoria (Guernsey Champion, first prize at St. Louis), the Glenwood, Imported May Rose and imported Masher families. Bulls only for sale. No cows for sale.

Dorset Horn Sheep.

DORSET HORN SHEEP.—Flock headed by the Imported Ram, "Morven's Best," No. 4132 (C. D. C.); first prize at the English Royal 1904. A few ram lambs for sale.

Flocks and herds may be viewed by appointment.

Address

LIVE STOCK DEPARTMENT, MORVEN PARK,
LEESBURG, LOUDOUN CO., VA.

with the shirred berth. The skirt is tucked above the frill, and shirred at its upper edges, the shirrings being arranged over a foundation yoke. The closing is made invisibly at the center back.

The quantity of material required for the medium size (12 years) is 7 1-4 yards 21, 5 1-2 yards 27 or 3 3-4 yards 44 inches wide with 3-4 yards of all-over lace 7 1-2 yards lace edging to make as illustrated; 3 yards additional 21, 2 1-2 yards 27 or 1 1-2 yards 44 inches wide if berth and frill are of the material.

The pattern 5205 is cut in sizes for girls of 8, 10, 12 and 14 years.



5204 Blouse Eton, 32 to 40 bust.

There is no coat better liked or more fashionable than the blouse Eton and none that suits a greater number of occasions. It is smart, jaunty and very generally becoming. It involves fewer difficulties for the amateur than do the tightly fitted coats, and it can be worn at all hours of the day. Here is one that is eminently simple at the same time that it is eminently chic and smart and which appropriately can be made of the light weight velvets, velveteens and broadcloths and indeed, all suiting that allow of being tucked with success. As illustrated, cloth in one of the new shades of sage is trimmed with velvet and handsome buttons, but here again there is opportunity for individuality, for the collar and cuffs can be made of broadcloth on rough material, of the material braided or trimmed with banding or of moire or, indeed, of any contrasting material that may be preferred.

The coat is made with fronts, back and centre front, all of which are tucked



ACTOR 26th, 136288

INGLESIDE HEREFORDS

Owned by S. W. Anderson, Blaker Mills, Greenbrier county, W. Va.

A choice lot of BULLS, COWS, and HEIFERS for sale. Also a few POLLED HEREFORD BULLS recorded in the National Polled Hereford Records. Write for catalogue and prices. Farm near Alderson, W. Va., on the C. & O. R. R. Telegraph and Telephone office, Alderson W. Va.



Grand Champion Prince Rupert, No. 79539.

HEREFORD CATTLE

HIGH CLASS HERD.

PRICES VERY REASONABLE.

EDWARD G. BUTLER, "ANNEFIELD FARMS,"

Berryville, Va.

Best English and American strain

BERKSHIRE HOGS.



"We Wish You a Prosperous New Year."

By investing in a Hereford Bull calf, you will certainly become prosperous. 5 calves ranging in age from 7 to 14 mos. and in weight from 60 to 120 lbs. for sale now. Finest breeding—biggest growth. Notice the ages and weights.

Cross a Hereford on "any old cow," and the result is a red, white faced calf—the Hereford trade mark on every one.

Calves can be shipped south now with perfect safety.

Best and largest herd in the State—best equipped plant.

Write us a letter now and send for catalogue.

ROSEMONT FARM, Berryville, Clarke Co., Va.

HEREFORDS

ENTIRE
HERD.

DORSET.

Sold to settle Estate.

H. ARMSTRONG, Lantz Mills, Va.



Edgewood Stock Farm.

DORSET SHEEP.

The first fruits of the flock arrived in October this year. We never took more pains in mating and we must have better ram lambs than ever before. As long as we deserve your trade, we shall expect it. The Dorset is coming right into its own in Virginia. If you are in the lamb business you must have Dorset blood. We will back your orders right now for Spring delivery. With best wishes for the breeders of the golden hoof.

H. B. ARBUCKLE.

Greenbrier, Co., Marlinton, W. Va.

FREE--BIRD WHISTLE--FREE

Imitates any bird and many animals. Send for stamp for postage. We will forward the Whistle and our immense new catalogue of novelties.

HUNTING, TRAPPING AND FISHING.

OR LIFE IN THE WOODS.

A fascinating book by an old trapper. All about the ways and habits of animals, birds and fish; and how to hunt, catch and stuff them. Tells how to make a small fortune raising mink for their fur. Full of valuable information for every hunter and fisherman. Sent postpaid together with the bird whistle for 25 cents. Regular Price \$1.—INTERNATIONAL NOVELTY CO., La-vergne Station, Chicago, Ill.

POLAND CHINAS.

THE BIG KIND and the PRIZE-WINNING KIND.

PIGS, BOARS and BRED SOWS for sale at greatly reduced prices in order to avoid crowding in winter quarters.

Herd Boars now in service are D'S CORRECTOR, 98157, a superb individual, bred by Winn & Mastir, of Kansas, and a half brother to the Senior Champion Boar at the St. Louis World's Fair. Half interest in the sire of D'S CORRECTOR sold for \$2,500. My other herd boar, BIG JUMBO, Vol 27, O. P. C. R., was sired by the 1100 lb. hog, PERFECT I AM, 50767, and out of the 700 lb. sow, LADY P. SANDERS, 79040. BIG JUMBO was bred by W. S. Powell, of Kansas, and will, I believe, make a thousand pound hog at maturity.

SA ISFACTION GUARANTEED OR STOCK MAY BE RETURNED AT MY EXPENSE. REFERENCES and TESTIMONIALS FURNISHED.

J. F. DURRETTE, Birdwood, Albemarle County, Virginia.



ed. The neck is finished with the collar and the closing is made at the centre front, the tucked centre portion being hooked over invisibly into place. The sleeves are quite new ones that are full above the elbows, laid in tucks below, a trimming band being applied over the upper edges of the tucks, while they are finished with becoming flare cuffs.

The quantity of material required for the medium size is 4 1-4 yards 21, 3 1-2 yards 27 or 2 yards 44 inches with 1 yard for collar, cuffs and belt.

The pattern 5204 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure.

We can furnish these patterns at 10 cents each.

SOUTHERN PLANTER CO., Richmond, Va.

Star Incubators and Brooders have become popular because of the success they have brought to their "lucky" possessors.

We can promise you that these Stars will never disappoint you. When you put your fertile eggs into a Star Incubator you can fortell the future of the hatch with far more certainty than the wisest astrologer can interpret the mysterious message from the solar system. They have made success a practical certainty for anyone who will use them right. Their many patented and exclusive features make poultry raising easy, pleasant, profitable, safe, sure.

Every chick hatched in a Star Incubator and raised in a Star Brooder, is a distinctive Chick—a "Star Chick"—as much as if it had a star stamped on its back. They are strong, sturdy, straight-limbed, bright-eyed, soft and fluffy—just the kind of chicks that will grow into money quick.

Get the handsome new catalogue of these new machines and learn how and why. Write the makers, the Star Incubator and Brooder Co., Bound Brook, N. J., for a copy. They will mail it free if you will mention this paper when you write.

Elmore Co., Ala., Dec. 8, 1905.

The Southern Planter is unreservedly the best agricultural newspaper in the South, or that circulates in this part of the country.

L. H. McCULLOUGH.

POLAND CHINA

—: AND —:

TAMWORTH PIGS

entitled to registration; also bred Sows at reasonable prices.

APPLY TO

J. C. GRAVES, Barboursville, Orange Co., Va



CHESTER WHITES

Registered herd—First Premium Stock; largest and most prolific hog on record; 3 Sows, 41 pigs, breeding stock 400 to 700 pounds; easy feeding; service boars sows bred. Fancy pigs for sale. My time to this bred 9 years. The best money can buy and feed produce.

P. M. FUNKHOUSER, Winchester, Va.

References: Farmers and Merchants National Bank, Winchester, Va.

HOLSTEIN FRIESIAN

A choice lot of young stock for sale; some young bulls ready for service and bull calves sired by DEKOL 2D, BUTTER BOY, 3D, No. 2, and SIR FAULINE CRADDOCK, whose breeding and individuality are unsurpassed.

Also a nice lot of BERKSHIRE PIGS, Biltmore and Filston strains.

Before buying, write us what you want. FASITT BROS., Sylmar, Md.

EVERGREEN FARMS

Offer at reasonable prices:

2 HIGHLY BRED REGISTERED JERSEY BULLS

aged 8 and 11 months

Full Blood **BERKSHIRES** from Royal Blood.

W. B. GATES, Prop.

Rice Dep. Prince Edward County, Virginia.

Do You Ship Apples?

If so, let us call your attention to the California and Oregon apple boxes, the coming packages for nice apples, particularly for foreign shipments.

SOUTHSIDE M'FG CO., PETERSBURG, VA.

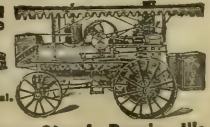
Thresh Your Grain With

AN AVERY

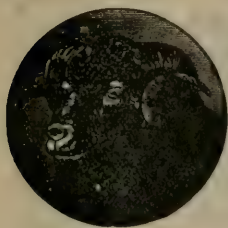
and save it.

The Famous Yellow Fellows

Mammoth Catalogue Free to Threshermen. Write for it.



AYER MFG. CO., 433 Iowa Street, Peoria, Ills.



Farmers and Live Stock Dealers

If you have any kind of Live stock to sell send it to me—Cattle, Sheep, Lambs, Calves or Hogs. I guarantee highest market value according to quality. Sales made quickly and returns promptly. Strict personal attention given to the sale of every animal. I pay just as much attention to a single head as I do to car lots. Write me when you wish to know the market on anything in my line. I give accurate information as to prices and conditions of our market.

ROBERT C. BRAUER, Richmond, Va.

COMMISSION SALESMAN OF CATTLE, HOGS, SHEEP, LAMBS, AND CALVES.

Address: P. O. BOX 204. Pens and Offices: Union Stock Yards. Long Distance Phone. Phones Nos. 993 and 5059.

PERUVIAN GUANO PRODUCES MORE AND BETTER TOBACCO THAN TWICE THE QUANTITY OF 8-4-4 COMMERCIAL FERTILIZER.

Marion, S. C., Sept. 26, 1905.
Messrs. E. Mortimer & Co.,
New York City.

Gentlemen:—I have yours of the 18th inst., and in reply would say that I can furnish you with a splendid testimonial regarding the effect of the Guano analyzing:

8.30 per cent. Ammonia, 2.00 per cent. Potash, 8.50 per cent. Total Phos. Acid, which I used on my tobacco.

I planted 7 acres of tobacco. On half I put 800 pounds of a commercial fertilizer, analyzing:

4.00 per cent. Ammonia, 4.00 per cent. Potash, 8.00 Phosphoric Acid and 150 pounds of sulphate of potash to the acre.

On the other half I applied 400 lbs. of the 8.30 per cent Peruvian Guano and 200 pounds sulphate of Potash:

THE PART OF THE FIELD WHERE I USED THE PERUVIAN GUANO MADE ABOUT 20 Per Cent. MORE TOBACCO AND OF A BETTER QUALITY. It did not ripen as early as that on which I put the 8-4-4 commercial fertilizer, but when it fully matured it ripened beautifully; in fact it ripened from the bottom to the top of the stalk almost at once and could have been cured on the stalk.

I also used the Guano on cotton with equally satisfactory results.

(Signed) R. J. Blackwell.
See advertisement in this issue.

THE "BLACK HAWK" CORN SHELLE.

A very reasonable useful and durable little machine advertised in this issue, is the "Black Hawk" Corn Sheller, made by Mr. A. H. Patch of Clarksville, Tenn. We invite interested parties to write to Mr. Patch for circulars, prices, etc.

Cobb Co., Ga., Nov. 23, 1905.

I can't do business without the Southern Planter.

T. W. WHITFIELD.

FREE

SILK REMNANTS

800

These Silks are from the Richest Product of Domestic and Foreign Looms In All The Shades.

To quickly introduce into every home our Electric Balm Completion, Toilet and Bath Soap, we offer 800 extra large genuine silk remnant's absolutely free to every one answering this advertisement. We will also send at once free a package of the Soap. Address, STANDARD SOAP WORKS, NEW YORK CITY, P. O. BOX 105, DEPT. 180 D

PATENTED

THE END ROLLING TRAY WALL TRUNK

1 - CENT - 1

Spent for a Postal Card, writing for our illustrated catalogue will show you how much you can save, buying a Trunk direct from the Factory at Wholesale Price.

You get one of the most convenient Trunks made. Usefulness, Simplicity, Durability and Economy combined. Prices from \$4.00 up, and sold under Guarantee. Money promptly returned if not perfectly satisfied.

Write for catalog—Return mail will bring it

B. D. THACKER & CO.,
SOLE MANUFACTURERS.
PETERSBURG, VA.



Water Supply for Country Homes.

Deliver water from spring or stream, to house, stable, lawn, storage tank, etc., by the automatic working

RIPE HYDRAULIC ENGINES.

Always going without attention. Raises 30 feet for every foot fall 80 per cent. efficiency. Large plants for irrigation, equipping towns, rail road tanks, etc. Over 5,000 in use. Catalogue and estimates free.

RIPE ENGINE CO., 126 Liberty St., New York, N. Y.

SCIENTIFIC MILLS

Grind all grains, ear corn, shelled corn, oats, rye, wheat and barley. Largest capacity with smallest power.

STRONGEST AND MOST DURABLE

50 styles and sizes. Sweep, Geared, Combined and Power.

Also Scientific Gas and Gasoline Engines. Write for new catalogue C.

THE FOOS MFG. CO., (Established 1875) Springfield, Ohio

STUDEBAKER 1906 ALMANAC.

The Studebaker Farmer's Almanac for 1906 is now ready for distribution. The issuance of this almanac has been made an annual event by the great Studebaker Vehicle establishment. This is the seventh year. It has always been filled with valuable information to farmer folk in addition to the regular calendar and almanac features. We think it but fair to say the present one is the best issued. An article on the "Evolution of the Vehicle," picturing and describing, practically every type of conveyance ever devised, from the crude contrivances of earliest times on down to the present, is a valuable feature of the 1906 book. Studebaker dealers have the almanac for free distribution or it may be had by sending a 2c stamp for postage to the Studebaker Company, South Bend, Ind.


ABOUT SCARS ON HORSES.

There are thousands of horses throughout the country with scars, and consequently thousands of horse owners that would like to rid their animals of these eye sores. It is not general known that it is possible to move an old scar tissue and heal with hair on and leave no blemish. W. F. Young, P. D. F., 109 Monmouth St., Springfield, Mass., has issued a small printed slip giving detailed instructions for removing scars with Absorbine that should be in the hands of every farmer. It is free for the asking—a postal will bring it.

A READY SELLING SPRAYER.

For all kinds of spraying, flowers, shrubs, vines, small trees, and for whitewashing, the "Kant-Klog" Sprayer of the Rochester Spray Pump Company, is a most worthy little machine. It is good because it gets the desired results and it does not require so much labor to do it. Its name indicates one good feature—it can't clog. It operates on the Compressed Air principle. It throws nearly a dozen forms of sprays from the same nozzle. Anybody who has an inclination toward agency propositions has a chance to make a good thing here. It is a ready seller and the manufacturer is asking for agents. See advertisement elsewhere.

No. 6 Iron Age Combined Double and Single Wheel Hoe, Hill and Seed Sower




Four of the Famous

workers that have made the Iron Age line of farm and garden implements known all over the continent. You can make more money this year than last if you will decide now to let them help you. Look at the good points of

Iron Age Implements

No. 1 Iron Age Double and Single Wheel Hoe



No. 60 Iron Age Improved-Robbins Potato Planter


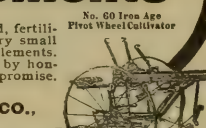


Figure out how much time, work, seed, fertilizer, &c., you might save with a very small outlay, by buying Iron Age implements. They have won their way by honest performance of every promise. Write for free book.

No. 60 Iron Age Pivot Wheel Cultivator



BATEMAN MFG. CO.,
Box 167,
Grenloch, N. J.

Planet Jr. For Easy Gardening.

Five Hundred Thousand Users all over the world proclaim the Planet Jr. farm and garden tools unequalled for dependable service, and true economy of time, labor and money. There's a "Planet Jr." for every need. The line includes Seeders, Wheel Hoes, Hoe Hoes, Harrows, Riding Cultivators (one or two row), Beet and Orchard Cultivators, etc.—45 tools in all.

Planet Jr. Seeders are without a rival. They sow all garden seeds accurately any depth or thickness desired, in either drills or hills; open furrows, drop and cover, roll and mark the next row, all at one operation. A regular stand of plants insured and no wasted seed.

Planet Jr. No. 12 Double Wheel Hoe is a marvel of usefulness. It enables you to hoe every day two acres of onions or any similar crop and do it faster and better than three men with hand hoes. Kills all weeds and leaves the soil in splendid condition. Farmers as well as gardeners need our 1906 book, which fully illustrates the machines at work both at home and abroad.

Mailed Free.

S. L. Allen & Co.,

Box 1107X, Philadelphia, Pa.



MATTHEWS' "NEW UNIVERSAL" GARDEN TOOLS

6 TOOLS IN ONE

Seeder, marker, hoe, rake, plow, cultivator, single or double wheel. Adjustments easily made. For planting and all kinds of cultivation.

Send for FREE BOOKLET of valuable information for planting and cultivating the garden and full description of these implements.

AMES PLOW COMPANY 55 MARKET STREET, BOSTON, MASSACHUSETTS

For Sale by GRIFFITH & TURNER CO., BALTIMORE, Md.

6 Styles Seeders Models of Accuracy

Opens furrow, drops seed, covers, rolls, marks.

Double or Single Wheel Hoe

Cultivator, Plow, Rake, Changes quickly made. Cultivator between or astride the row. Any depth, any width.

Note High Arch and Plant Guards. Bent Oak Handles on all Tools.

AMES PLOW COMPANY 55 MARKET STREET, BOSTON, MASSACHUSETTS

NEW STEEL ROOFING and SIDING, \$1.75 per 100 SQ. FEET FIRE, WATER and LIGHTNING PROOF

Metal roofing such as we offer is far superior to any other kind. It is easier to lay, lasts longer and costs less. No experience necessary to lay it. Just an ordinary Hatchet or Hammer—the only tools you need. This roofing at \$1.75 per 100 square feet, is our No. 13 Grade Semi-Hardened Steel, painted red two sides, perfectly flat, 24 inches wide by 24 inches long. Corrugated (as illustrated), "V" Crimped or Standing Seam costs \$1.85. We can furnish this roofing in 6 or 8 foot lengths at 25c per square additional. We offer Pressed Brick Shading and Beaded Siding at \$2.25 per 100 square feet. At these prices

WE PAY THE FREIGHT TO ALL PORTS EAST OF COLORADO

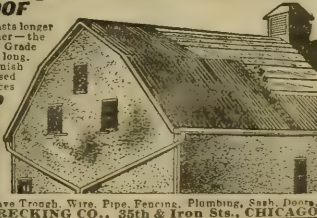
except Oklahoma, Indian Territory and Texas. Prices to other points on application.

Send in your order for as many squares as you may need to cover your new or old Building. Time has proven its enduring qualities. Thousands of Barns, Houses, Residences, Poultry Houses and Buildings of every kind are covered with this superior material. We guarantee satisfaction. Money cheerfully refunded if upon receipt of the material you do not find it all we represent it, or if you are not perfectly satisfied in every way. Just send the material back at our expense, and we will refund the purchase price. If you want quick delivery, now is the time to place your order. Send us diagram of the Building you have to cover, and we will quote you a

Freight prepaid price on such covering as we deem best suited for your purpose.

Ask For Our Special Catalogue No. R166. It quotes low prices on roofing, Down Spouting, Eave Trough, Wire, Pipe, Fencing, Plumbing, Sash, Doors, Furniture, Household Goods and everything needed on the Farm or in the Home.

CHICAGO HOUSE WRECKING CO., 35th & Iron Sts., CHICAGO



MAGAZINES.

It is not easy to choose for special mention any one feature of the January Century; but most readers are likely to turn first to the new chapters of Mrs. Humphry Ward's "Fenwick's Career," chapters which tell of the Christmas season in the Westmoreland country, of Fenwick's growing rebellion against all the conditions of his earlier life, and of Phoebe's setting out for London. The sketch of Madame de Pastourelles by Albert Sterner is reproduced in time. There is a short story by Israel Zangwill, "The Yiddish 'Hamlet'"; and other short stories by Elsie Singmaster, Katharine Holland Brown, Grace S. H. Tylue, Beatrice E. Rice, Florida Pier and Mary Hallock Foote.

Publication of the late Secretary Hay's study of "Franklin in France"—an account and estimate of the work of the most successful of the diplomats of the past by the most distinguished and successful of American diplomats of our own time—comes with happy timeliness, just as the nation is about to celebrate the two hundredth anniversary of the birth of Franklin. The address was prepared for delivery in Chicago several years ago, but ill-health caused it to be laid aside.

Three other stories of timely interest and importance are the discussion of "Railway Rates and Industrial Progress" by Samuel Spencer, president of the Southern Railway (the other side to have a hearing in the next number of The Century); Oscar King Davis's narrative of that remarkable feat of engineering "Theucin Cut-off," and Charles De Kay's description of the four marble groups by Daniel Chester French, designed for the main front of the new custom house in New York, and which are regarded by Mr. French as his best work. The second instalment of Frederick Trevor Hill's "Lincoln the Lawyer" tells of Lincoln's law student days, his admittance to the bar, and his first partnership.

The January St. Nicholas, coming just in time for New Year's reading, is full of cheer and fun—a number with much for grown-ups as well as for the children of the family. W. J. B. Moses's "The Ransom of Billy," and the new Pinkey Perkins's story, "How Pinkey Caught a Bank Account," are Christmas Day tales; and Edith Thomas's lines on "The Procession of the Three Kings" are illustrated by a full-page reproduction of Paul Hey's lithograph. "For they will find her, sitting still and weak, upon a bench, beside some stable shed," Paul R. Heyl tells in bold measure "The Ballad of Bruce's Bowl;" Elizabeth Price's "Miss Dorothea's Recital" is a charming tale; Carter Hamilton's "Plajack" is a jolly story of a jolly little dog-hero; Ellis Butler's "The Rowena O'Toole Company" is full of fun; and Francis Arnold Hains's "Toy Railroad" is good

SAMPLE BROWN FENCE

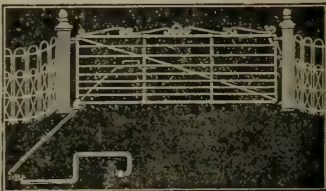
16 to 35 cts.
Per Rod Delivered

lowest wholesale prices—Galvanized Wire, Gates and Builders Netting. Save money by ordering direct from us. Address: **THE BROWN FENCE AND WIRE CO., Cleveland, Ohio.**

MANLOVE SELF-OPENING GATE

ALWAYS IN ORDER.

In general use many years. Is guaranteed to work and give satisfaction, all sales made on that basis. It saves time and annoyance. Adds to value, and good appearance of a home and is a good advertisement for any up-to-date prosperous place. Catalogue, MANLOVE GATE CO., 272 Huron Street, Chicago, Ill.



Page Poultry Fence Costs Less



erected than common nettings; fences poultry in and stock out; requires no boards and but few posts; never sags, bags, or buckles, and outlasts the posts. Complete description and prices furnished on request. Write today.

Page Woven Wire Fence Co., Box 512, Adrian, Mich.

PRATT'S "SCALECIDE" Soluble Petroleum

Is Cheaper and More Effective than LIME, SULPHUR and SALT in controlling

SAN JOSE SCALE.

Mr. J. H. BAIRD, Supt. Hale Georgia Orchard Co., Fort Valley, Ga., writes: "I am more confident each day of the results from Scalecide—to all inquirers I recommend it."

For sample, testimonials and prices delivered at your Railroad Station, address

B. G. Pratt Co., 11 Broadway, New York, N. Y.

Pulls Stumps or Standing Trees.

Clears a two-acre circle with one sitting—pulls anything the wire rope will reach; stumps, trees, grubs, rocks, hedges, etc. A man and a boy with one or two horses can run the

COMBINATION STUMP PULLER,

Stump Anchored or Self Anchoring.

A minute and a half is all it takes for the ordinary stump. No heavy chains or rods. Note the strong wire rope with patent coupler—grabs the rope at any point. Does not chafe rope; for sheath of double "take-up." Smallest rope we furnish stands 40,000 lbs. strain. It generates immense power and it's made to stand the strain. We also make the Iron Giant Grub and Stump machine, the L. X. L. Grubber and Hawkseye Grub and Stump Machine. Write for free illustrated catalogue.

Largest manufacturers of Stump Pullers in the World. Established 1884.



WILNE MFG. CO.,
836 8th St., Monmouth, Ill.



after-Christmas reading. Helen Nicolay's "The Boys' Life of Lincoln" is proving instructive and absorbing reading for the older girls and boys; and youngsters of all ages find the other serials, "From Sioux to Susan" and "The Crimson Sweater," close rivals for favor.

In this number begins S. E. Forman's "Stories of Useful Inventions," designed to unfold the fascinating history tied up in common things, matches, books, clocks, etc. How much interest there is in the life-history of one match one must read this first chapter to discover. There are other good things in the number, many pictures and verse by well-known contributors, and the always delightful and profitable departments of Nature and Science, the St. Nicholas eague, the Letter-Box, the Fiddle-Box, Books and Reading, and the Stamp Page.

FARM TELEPHONES A NECESSITY.

The utility of the telephone to the farmer is becoming more pronounced every year. The endless satisfaction of being in close touch with neighbors, the city railroad station, creamery, and city, appeal not only to the farmer but to his family as well. The Jul. Andr  & Sons Co., 934 W. Walnut St. Milwaukee, Wis., specialize in supplying farmers and independent lines with everything pertaining to telephone systems. They have been very successful in establishing telephone systems throughout the entire country, make a special telephone for farmer's use. Their instruments are constructed in such a manner as to enable them to be subjected to extra hard usage. We would advise our subscribers to write for the large book that is being given away free by the Andr  Co.

SMOKE HOUSE NO LONGER NEEDED.

Better Method of Preserving Meat That Gives Better Results.

Smoking meats without a smoke house has produced results that are better in every way than the old fashioned method of preserving ham, shoulder, bacon, dried beef, sausage, bologna, fish, etc. The most perfect, palatable helpful meats ever obtained by any means of smoking have been produced by applying Krauser's Liquid Extract of Smoke.

Krauser's Liquid Smoke is a pure clean extract of hickory wood in a liquid form. It is applied with a brush or sponge and it is cheaper and cleaner than the old way. Gives perfect protection against insects and mould.

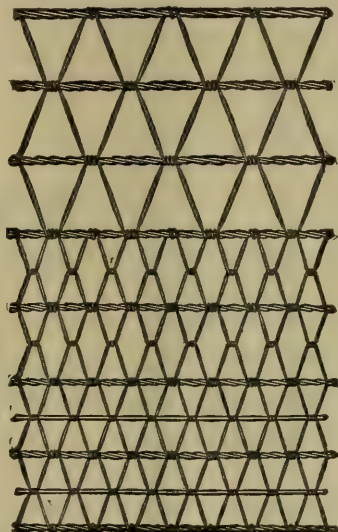
Information concerning its use, cost, etc., can be had by writing to the makers, E. Krauser & Bro., Milton, Pa.

Washington, D. C., Dec. 15, 1905.
The information obtained from your editorials and intelligent contributions is invaluable.

T. A. T. JUDD.

ELLWOOD FENCE

We guarantee Ellwood Fence because we know how it is made. All the resources of the greatest steel and wire mills in the world are brought to bear in getting as near perfection as it is possible.



We mine the ore from our own mines, make it into steel in our own mills, draw it into wire and weave it into the fence—all under our own eyes from the ground until it is ready to staple to the posts. The best known processes are employed. Dealers in every place. Get catalogue.

American Steel & Wire Co.

CHICAGO

NEW YORK

DENVER

SAN FRANCISCO

CATALOGUES.

T. W. Wood & Sons, Seedsmen, Richmond, Va. The annual catalogue of Seeds for the Farm and Garden, sent out by this firm, has now been issued so long that it has come to be looked for by Southern farmers, truckers and gardeners as a necessity, as it not only gives full particulars of all seeds required, but furnishes much other valuable information as to crops, in such a condensed form as to be immediately available to the busy man. The issue this year is sent out in a beautiful cover and contains particulars of many new varieties of the varied crops peculiar to the South, as also of all the old standard sorts deserving of cultivation. Copies will be sent to all who are on the firm's books and to others who may apply for the same.

Wm. E. Miller, of Herndon, Va., Real Estate Agent, sends us a handy folding catalogue of some of the fine properties in his hands for sale, illustrated with views of many of the places. Send for this if you think of coming to Virginia. Mr. Miller is a reliable man and understands the lands in his section of the State, and this is one of the best. He aims always to make a satisfied, good settler of his customers.

The Holiday number of the Breeders Gazette, Chicago, Ill., was one of the finest issues ever made of an Agricultural Journal. The Breeder's Gazette is the best Live Stock paper in the world and no stockman should fail to take it. We can send it to you with The Planter for \$1.50 per year.

Food for Plants. Edited by Wm. S. Myers, 12 John street, New York. This is a hand book of 230 pages, containing much valuable information, especially as to the use of nitrate of soda as a top dressing. It will be sent free if you mention this journal.

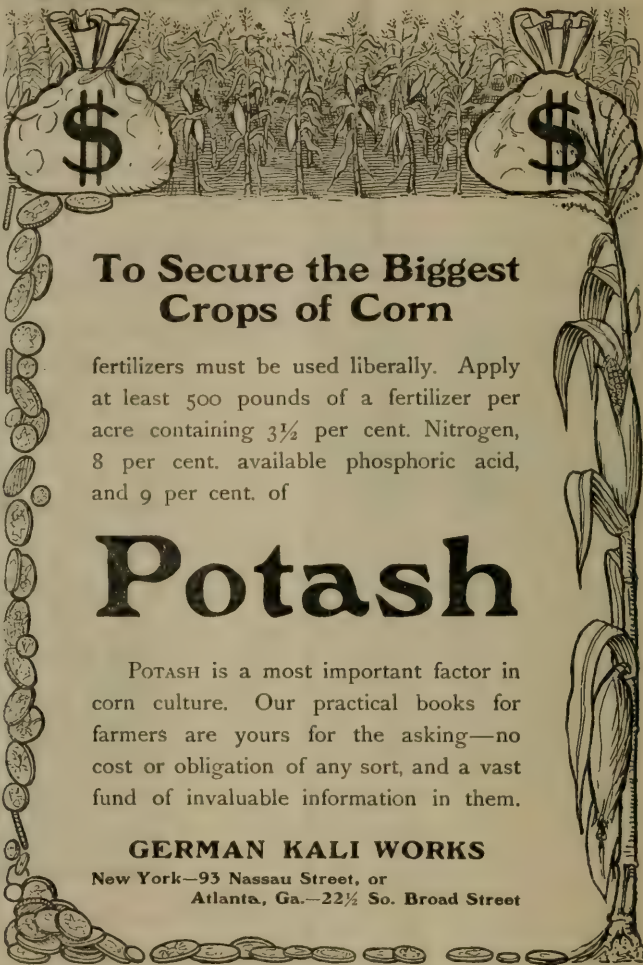
A. B. Farquhar Co., Ltd., Implement makers, York, Pa. This old established firm has just issued a full descriptive catalogue and price list of all the implements and machinery manufactured by the firm. This will be found to be a most useful catalogue to have at hand on the farm and will be sent free on application.

Walter A. Wood Mowing and Reaping Machine Co., Hoosick Falls, New York. Fiftyfourth annual catalogue. This firm is the oldest and largest independent manufacturer of harvesting machines in the world.

Doylestown Agricultural Works, Doylestown, Pa., manufacturers of horse powers, junior threshers and cleaners, ensilage cutters and riding cultivators.

Geo. H. Lee & Co., Omaha, Neb., makers of "Mandy Lee" incubators and brooders, and also publishers of a Calendar and Egg Record, which will be found useful.

J. & Sohre, land industrial agents, one, Va.



To Secure the Biggest Crops of Corn

fertilizers must be used liberally. Apply at least 500 pounds of a fertilizer per acre containing $3\frac{1}{2}$ per cent. Nitrogen, 8 per cent. available phosphoric acid, and 9 per cent. of

Potash

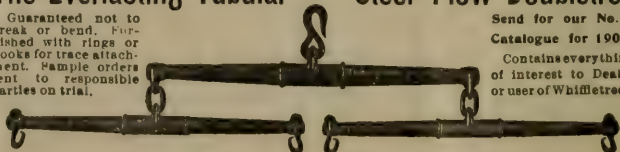
POTASH is a most important factor in corn culture. Our practical books for farmers are yours for the asking—no cost or obligation of any sort, and a vast fund of invaluable information in them.

GERMAN KALI WORKS

New York—93 Nassau Street, or
Atlanta, Ga.—22½ So. Broad Street

The Everlasting Tubular

Guaranteed not to break or bend. Furnished with rings or hooks for trace attachment. Sample orders sent to responsible parties on trial.



PATTERN No. 105 EQUIPPED WITH FORGED TRIMMINGS.

Also manufacturer of Farm Wagon Doubletrees, Neck Yokes and Singletrees.

Pittsburg Tubular Steel Whiffletree Company,
SOLE MANUFACTURERS
PITTSBURG - - PENNSYLVANIA.

Steel Plow Doubletree

Send for our No. 8 Catalogue for 1905.

Contains everything of interest to Dealer or user of Whiffletrees.

THE VERY FIRST MATCH.

John Walker, an English Druggist,
Was the Inventor in 1827.

In the nineteenth century—the century in which so many wonderful things were done—the fourth step in the development of the match was taken. In 1827, John Walker, a druggist in a small English town, tipped a splint with sulphur, chlorate of potash, and sulphid of antimony, and rubbed it on sandpaper, and it burst into flame. The druggist had discovered the first friction-chemical match, the kind we use to-day. It was called friction-chemical because it is made by mixing certain chemicals together and rubbing them. Although Walker's match did not require the bottle of acid, it nevertheless was not a good one. It could be lighted only by hard rubbing, and it sputtered in all directions. In a few years, however, phosphorus was substituted on the tip for antimony, and the change worked wonders. The match could now be lighted with very little rubbing, and it was no longer necessary to have sandpaper upon which to rub it. It would ignite when rubbed on any dry surface, and there was no longer any sputtering. This was the phosphorus match, the match with which we are so familiar.

After the invention of the easily lighted phosphorus match there was no longer use for the dip-splint or the strike-a-light. The old methods of getting a blaze were gradually laid aside and forgotten. The first phosphorus matches were sold at twenty-five cents a block—a block containing a hundred and forty-four matches—and they were used by but few. Now a hundred matches can be bought for a cent. It is said that in the United States we use about 150,000,000 matches a year. This, on an average, is about five matches a day for every person.

SOME BIG OYSTERS.

The usual size of the shell of an oyster is three to five inches, but away back in Tertiary times there were oysters in California that had shells thirteen inches long and seven or eight inches wide. The animal and shell doubtless weighed fifteen or twenty pounds, since the shells were five inches thick. These oysters have long been extinct, but their fossil shells are abundant. If the oyster-farmer could produce individuals of such enormous size now, and the flavor were good in proportion to its size, we would be most fortunate. In that case a single oyster would be enough for one stew at the church festival.

Minneapolis, Minn., Dec. 13, '05.
I consider the Southern Planter the best agricultural paper published and I enjoy reading it, as it is good, sound sense, and that is what the farmer wants.
J. W. DOUGLASS.

PERUVIAN GUANO

A Complete Natural Manure.

We have imported during the 1904-1905 fertilizer season over 30,000 tons of this splendid natural manure, a large part of which was sold in the Southern States.

PERUVIAN GUANO is a natural manure, free from all chemical treatment, and not only contains a high percentage of plant food in the choicest forms, but a larger quantity of organic matter which improves the condition of your land.

We are importing this Guano from two deposits at Lobos de Tierra. That from the older of the deposits contains a high percentage of phosphoric acid, while the Guano from the more recent deposits runs high in ammonia.

The following analyses represent about the average from these two deposits:

Cargo Ex. S. S. Coya.		Cargo Ex S. S. Cella	
9.30%.....	Ammonia	3.55%	
2.28%.....	Potash	4.30%	
9.50%.....	Phosphoric Acid.....	22.40%	
28.02%.....	Organic Matter.....	14.36%	

PERUVIAN GUANO, being a natural product, every cargo from the same deposit varies slightly, but the above analyses represent average cargoes. We shall be glad to supply exact guaranteed analysis of each cargo and to refer buyers to our nearest agent, or, if we have no agent in their locality, quote them prices f. o. b. at their nearest shipping point.

We have just gotten out a 76-page book on the "home mixing" of fertilizers, entitled PLANT FOOD PROBLEMS.

This book contains full information in regard to the various materials used as fertilizers; gives the formulas best suited to different crops and tells the farmer how he can buy the raw materials and mix his fertilizers at home, thereby saving at least five dollars a ton.

A request by postal addressed to our Charleston office will place this book in your hands.

Peruvian Guano a Superior Base for Home Mixtures.

Peruvian Guano is a material that commends itself strongly as the best possible base for home mixtures. By its use, the necessity for using a large number of materials in compounding is entirely done away with. Such materials as ground bone, tankage, dry ground fish, dried blood, sulphate of ammonia, etc., are not needed since the Peruvian Guano supplies all the plant food elements furnished by these materials, in choicest forms, and already intimately mixed and combined by natural processes.

Fertilizer Materials for Home Mixing.

In addition to Peruvian Guano we import the following materials which we sell in original bags, under guaranteed analyses, and ship directly from the vessel on which they arrive, thereby being able to quote the consumer practically the same price the fertilizer manufacturer has to pay.

Nitrate of Soda,	Nitrate of Potash,	Sulphate of Potash,
Muriate of Potash,	Kainit,	Basic Slag.

Trusting that you will decide to at least give PERUVIAN GUANO a trial and inquire our prices on other fertilizer materials before placing your order, we are, respectfully yours,

THE COE-MORTIMER COMPANY

33 BROAD STREET, - - CHARLESTON S. C.

GOOD HOUSEKEEPING.

A friend asked me some time ago, "Why don't you tell the people how good carrots are?" He had been travelling in the South and had been introduced to them for the first time on the steamer table. So now I have concluded to "tell the people." I suppose they are raised in small quantities in almost every garden, for soup and for ornament, and stockmen have them in large quantities. Well cooked and seasoned they are among the best of the winter vegetables and there are several ways to serve them. Scrape the roots and cut them into small squares or slices, let them cook until they are tender; it takes about two hours; then take them off and drain the water off and add a cup of milk, a lump of butter, and a tablespoon of flour mixed with a little cold milk; pepper and salt. Let them boil up once and serve hot. The Creoles use the carrot as a blood purifier, and say there is no greater beautifier of the complexion. They make a strong tea and drink it several times a day.

Artichoke.

This is another vegetable which is hardly known among our housekeepers, and is only planted for the pigs to root, while as a matter of fact it is fully as delicate and toothsome as the potato and the salsify. You can begin to use them in November. Scrape the roots and drop them into cold water for a while, then put them into a saucepan with plenty of water and parboil them for twenty-five minutes. Take them out and pour milk enough to cover over them, season with salt and a little black pepper, let them boil for a while longer and add butter and a spoon of flour; serve very hot.

Stuffed Steak.

Take three pieces of round steak about the same size, lay one of them in the bottom of a baking pan and make a stuffing of bread crumbs, seasoned with salt, pepper, a little bit of onion and a pinch of cayenne, some butter, and enough stock, or water, to dampen the mass. Spread this dressing over the layer of steak and put the next piece on top, then another layer of dressing and the last piece of steak, with a thin layer of the dressing over it. Pin the pieces together securely, with skewers, or you may tie it with cord, and put a pint of hot water over it. Let it bake slowly for two hours and if the top scorches, put a buttered paper over it or turn a pie plate over it to keep from burning. Baste several times. This is a nice way to treat tough steak.

Sally Lunn.

I have been told that this is a bread peculiar to Virginia homes. To my mind, it is one of the best of the many good things we have, and it is a simple process to make it. Take two quarts of flour and five eggs, beat the eggs

"Increase Your Yields Per Acre"



The BEST of everything

and the greatest quantities of every growing thing can be readily produced with the liberal use of Virginia-Carolina Fertilizers, together with careful cultivation. The materials of which they are made, cause them to enrich the land, and the plants to come up rapidly and more prolific. Use

Virginia-Carolina Fertilizers

on your fruits and fruit-trees of all kinds, corn, wheat and all trucks. For, at harvest time, you will have the largest (for these will "increase your yields per acre") and finest crops you ever raised in all your farm life. Don't buy the inferior substitute that any fertilizer agent may try to persuade you to put on your land.

Virginia-Carolina Chemical Co.,

Richmond, Va.
Norfolk, Va.
Durham, N. C.
Charleston, S. C.
Baltimore, Md.

Atlanta, Ga.
Savannah, Ga.
Montgomery, Ala.
Memphis, Tenn.
Shreveport, La.



W. A. Miller & Son,

1016 Main St. Lynchburg, Va.

—DEALERS IN—

Seeds, Fertilizers and Wool.

SEEDS. We sell every kind of seed for field and garden of best quality, and as low as same qualities can be bought in any market.

FERTILIZERS. We sell Fertilizers for every crop, under our own brands. All who have used our High Grade Tobacco Guano, Corn Grower, Wheat and Grass Fertilizers, Pure Raw Bone, and High Grade Acid Phosphate, analyzing from 14 to 16 per cent., pronounce them the best they have used.

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Parties wishing to purchase will find it to their interest to see us before buying.

VIRGINIA FARMS

ALL SIZES AND LOW PRICES.

\$5 to \$25 per Acre.

IMPROVED AND UNIMPROVED.

Mild Climate; Elegant Water; Send for Free Catalogue.

J. R. HOCKADAY & CO., RICHMOND, VA.

without separating them, add two tablespoons of sugar, salt and a cup of butter and lard mixed. a cup of yeast and nearly a quart of milk. Set it to rise over night, or in the morning if you want it for supper. When it is well risen, beat it down and put it into the large cake mould or right bread pan. Let it rise nearly to the top and bake quickly. Serve very hot.

Buckwheat Cakes.

One quart of buckwheat flour; one pint of corn meal; one half teacup of yeast; salt. Make up with enough water for a stiff batter and beat hard for five minutes. In the morning, when it is well risen, add a large spoon of butter or lard and a pinch of soda, and thin the batter with some milk. Beat hard and let it stand for a while. Fry on a hot griddle and serve at once with syrup. Of course maple syrup is the best, but you can make a very good imitation by boiling six pounds of sugar with one gallon of water until it is thick, and seasoning it with the inside (yellow) bark of the hickory tree. Put the bark in when you put the sugar on. I have used this a great deal and few people could tell that it was not maple syrup. A friend told me that she used corn cobs with the same result, but I have not tried them.

White Cake.

When eggs are scarce you can save the whites from the salad dressing, the cornbread, and various other dishes, making the cost of the cake almost nothing. The whites of eight eggs beaten very light; one cup of butter creamed with two cups of sugar; three cups of flour, sifted with a half teaspoon of soda and one teaspoon of cream tartar; one half cup of sweet milk. Mix all the ingredients and add the whites last. Season with bitter almond; bake in layers, and spread icing between.

Currant Cake.

One cup of butter, creamed light; two cups of sugar; four cups of flour; one teaspoon of soda and two of cream tartar, sifted in the flour; half cup of sweet milk; season with nutmeg; one pound of currants rolled in the flour; add the currants after the cake is made and ready for the pan.

Custard Cake.

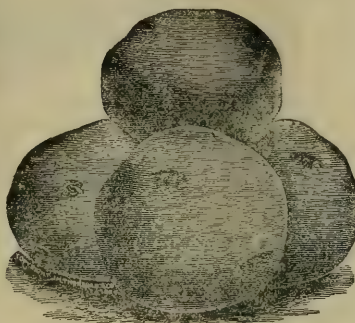
Seven eggs, leave out the yolks of four; three cups of flour; half cup of butter, creamed with two cups of sugar; one cup of milk; one teaspoon of soda and two of cream of tartar, sifted with the flour; bake in layers. For the custard, take the four yolks, three cups of milk and three tablespoons of corn starch; scald the milk and add the yolks, beaten very light,

Two Highest Awards at St. Louis Exposition: Gold Medal for Seed and another Gold Medal for Vegetables.

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SALLY RECOGNIZED AS THE STANDARD of EXCEL-
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This wonderful potato, introduced by us for the first time, last season, has borne out all claims we made for it. It has been universally praised and we expect a much greater demand for it this season. We offer it now at quite moderate prices. Send your orders in early.

OUR CATALOGUE the 105th successive annual edition—contains as heretofore, a more complete assortment of high class Seeds, etc., and fuller cultural directions than any other seed annual published. It is beautifully illustrated with the finest half tones, and contains 144 pages, and is in every respect and without exception the most complete, most reliable and the most beautiful of American Garden Annuals.

We mail it free to all interested in gardening and farming. Send for it.

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STARK FRUIT BOOK

44 pages 9 x 12 inches; 22 pages showing in natural colors 216 varieties of Fruit, with concise description and season of ripening of each; 64 half-tone views of Nurseries, Orchards, Packing Houses, etc. Send 50 cts. for book (post-paid) and Rebate Ticket permitting return of book by mail within 60 days and we refund the 50¢. Or, mail us within 1 year, Rebate Ticket with \$12 order for nursery stock and we will credit \$1.00 in part payment on your order and you KEEP THE BOOK FREE. WE PAY THE FREIGHT. We Pay Cash weekly and want more home and traveling salesmen. OUTFIT FREE.—Stark Bro's, LOUISIANA, Mo., Atlantic, Iowa, Fayetteville, Ark.

DON'T BUY GASOLINE ENGINES

UNTIL YOU INVESTIGATE "THE MASTER WORKMAN," a two-cylinder gasoline engine superior to any wagon at small cost—portable, stationary of traction. Mention this paper. SEND FOR CATALOGUE. THE TEMPLE PUMP CO., Mrs. Meagher & 10th St., Chicago. THIS IS OUR FIFTY-SECOND YEAR.

with the corn starch dissolved in a little cold milk; sweeten to taste and season with vanilla. When it is cold, spread it between the layers.

CARAVEN.

REPORTS.

U. S. Department of Agriculture, Washington, D. C. Annual report of the Secretary of Agriculture, 1905.

This is one of the most interesting reports ever issued by any Secretary of Agriculture and ought to be in the hands of every farmer. It comments on the marvellous prosperity of American farmers, showing the production of crops of unprecedented quantity and selling for prices returning good money to the producer. The Secretary says: "The wealth produced on farms in 1905 has reached the highest amount ever obtained by the farmers of this or any other country, a stupendous aggregate of results of brain, muscle and machine amounting in value to \$6, 415,000,000. Much of this enormous wealth is no doubt to be attributed to the fact that the farmers of this country have learnt to appreciate the value of the information supplied to them by the Department of Agriculture and the Experiment Stations of this country. Farmers should see to it that this Department and the Experiment Stations have the liberal support of Congress in the way of appropriations to carry on the work. Farmers are the greatest tax-payers and have the clearest right to have their special Departments liberally supported. The present Secretary of Agriculture has done more for them than any other Secretary and ought to have their support."

Forest Service. Bull. 62. Grazing on the public lands.

Division of Publications. Circular No. 1. Organization of Department of Agriculture, 1905-1906.

Bureau of Soils. Bull. 30. The mineral constituents of the soil solution.

Farmers' Bulletin, No. 235. Cement mortar and concrete—preparation and use for farm purposes.

U. S. Department of the Interior. U. S. Geological Survey. Underground waters of Salt River Valley, Arizona.

Maryland Experiment Station, College Park, Md. Bull. 105. Fumigating Nursery Stock.

Nebraska Experiment Station, Lincoln, Neb. Bull. 91. Experiment with corn.

Indiana Experiment Station, Purdue University, Lafayette, Ind. Bull. 109. Examination of horses for soundness.

Pennsylvania Experiment Station, State College, Pa. Bull. 73. Distillers Dried Grains vs. Cotton



Fruit Trees 7½c

Why pay two prices for all kinds of nursery stock to cover agents' profits and bad debts, when we, by employing no agents and making no bad debts—selling for cash direct to the people at lowest wholesale rates—will save you half. Twenty-one years experience. 1,000,000 high class fruit trees, 50,000,000 strawberry plants. Special bargains in peach trees. Safe and cheap delivery anywhere in U. S. Catalogue free. Valuable book on fruit growing free to buyers.

Strawberry Plants

\$1.25 per 1000

Write to-day for catalogue. Mention this paper. Address
Dept. E, CONTINENTAL PLANT CO., Kittrell, N. C.

Headquarters for Nursery Stock.

WHOLESALE
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We make a specialty of handling dealers' orders.

ALL STOCK TRUE TO NAME.

Apples,	Nectarines,	Pecans,	Ornamental and
Pears,	Cherry,	Chestnuts,	Shade Trees,
Peach,	Quinces,	Walnuts,	Evergreens,
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CALIFORNIA PRIVET, for Hedging.

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APPLES, PEACHES, PEARS, CHERRIES, PLUMS, APRICOTS, NECTARINES, GRAPEVINES in large assortments, GOOSEBERRIES, CURRANTS, STRAWBERRIES, HORSE-RADISH, ASPARAGUS, DEWBERRIES, and an extra fine lot Raspberries. Splendid assortment ORNAMENTAL and SHADE TREES, ORNAMENTAL SHRUBS and HEDGE PLANTS.

EGGS from B. P. ROCK and BROWN LEGHORN FOWLS at \$1.00 per 18. Also a few pullets and cockerels of these breeds at \$1.00 each for immediate delivery. Write for Catalogue to

J. B. WATKINS & BRO., MIDLOTHIAN, VA.

Seed Meal as a source of protein.
 Virginia Department of Agriculture
 and Immigration, Richmond, Va.
 Farmers' Bull. No. 5. Poultry
 Raising in Virginia.
 Virginia Weather Service, Richmond,
 Va. Report for November, 1905.
 Tennessee Experiment Station, Knox-
 ville, Tenn. Bull. Vol. XVII, No.
 2. Small fruits and grapes.
 University of Tennessee, Knoxville,
 Tenn. Courses in Agriculture
 and Domestic Science at the Uni-
 versity.
 Imperial Agricultural Department for
 the West Indies, Barbados, W. I.
 West Indian Bulletin Vol. VI. No.
 3.

THE NEW YEAR.

With the arrival of the New Year, we find ourselves pondering over the events of the year just ended. Its joys, its sorrows, its gains, its losses. Our aims, our aspirations have either been disappointing or encouraging. We are either glad or sad that life has been to us what it has been. When we scan the immaculate page of this New Year we find ourselves thinking of its many possibilities. What shall it record for us? How much of good or bad? Some one has said this life is what we make it, and in a great degree this is true. We cannot hope to enrich the gardens of life unless we sow therein the perennial flowers of love and hope. We know we must reap that which we sow. Our lives must be lived by the minute, by the hour, by the day, giving to each appointed time only what will last and grow to all eternity. I have always thought it a glorious privilege to live so entirely in ignorance of the future, for after all, what does to-morrow matter if we live to-day as we should? When to-morrow comes it is only another day, and if upon its pages another day's duties are recorded as faithfully done, isn't that just another link in the chain that draws us heavenward?

With the dawn of the New Year comes new aspirations to the most of us. What we have lacked most in the year just closed, we must with doubled effort seek now. In each character there is some flaw, either great or small. Selfishness is one of our greatest sins, and the hardest to overcome. We find self cropping out in almost every transaction of life, and when we do good to our neighbors, it is often from some selfish motive, that we have hardly been aware of. To do away with the little sins and struggle against the selfish aims of life should be a great effort with us this New Year. There is no greater reward than the approval of one's own conscience, and however wrong our thoughts and actions we know that they are so, and it is our duty to correct them and offer only that which is best to the Maker of all that is pure and good in this world. What does it matter whether we have gained great

TWO GREAT AND VALUABLE DISCOVERIES.

KIL-@-SCALE THE WONDERFUL DESTROYER OF THE DREADED SAN JOSE SCALE

Has saved hundreds of orchards by killing the dreaded scale. Write at once for special circular. Used and endorsed by State Experiment Stations. Easy to apply, economical and wonderfully effective. Dilutes one gallon to twenty gallons of water. Per gallon, \$1.50; five and ten gallon cans, \$1.25 per gallon; half barrels, \$1.00 per gallon. Write for circular K.

Nitrogen Culture

The Nitrogen Fixing Bacteria for inoculating Clovers, Peas, Beans, fruit up in simple form so that any one can use it; with splendid results. Promotes growth, improves land for next crop. Send for special circular. Garden package, 25c; acre \$1.50; five acres \$5.00, postpaid.

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 FREE-OUR 160 PAGE GENERAL CATALOGUE OF SEEDS, MACHINERY, GARDEN & POULTRY SUPPLIES.

Early Crops Mean Big Prices

The sooner your early vegetables are on the market, the higher the prices they command. You know this and you know also that our

Hardy Northern Grown Seeds grow fastest, mature earliest, and make largest crops. You know why. The Northern growing season is shorter, plants grow quicker and mature sooner. This makes them strong and sturdy. Their vitality is greater. Their seeds sprout very quickly, grow very rapidly and mature in the shortest possible time. This means early crops. Early crops mean first markets, and first markets mean fancy prices. Try it yourself and see.

TAKE POTATOES! We grow all the popular varieties, but our **Extra Early Petoskey** is the fastest grower—the quickest to mature—the biggest producer. You can get them on the market from two to three weeks ahead of all other varieties. And the potatoes are big, tempting beauties—snow white, mealy and delicious eating.

FOR 25 CENTS (stamps or coin) we will send you a big Petoskey Potato and our complete catalogue of **Hardy Northern Grown Seeds**. Catalogue alone FREE. Write today and get your seed in the ground early. You won't be sorry. Remember you can prove all we say if you act promptly and send at once.

DARLING & BEAHAN, 302 Michigan St., Petoskey, Mich.

W. T. HOOD & CO., OLD DOMINION NURSERIES, RICHMOND, VIRGINIA.

Wholesale and Retail Growers of

High Grade Nursery Stock

Descriptive catalogue and price list on application.

Office: Chamberlayne & Rennie Ave. Nurseries: Henrico & Nanover Counties.

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 Surplus and Undivided Profits, - - - \$720,000.

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 Being the largest depository for banks between Baltimore and New Orleans,
 we offer superior facilities for direct and quick collections. Accounts solicited.

JOHN P. BRANCH, Pres. JOHN K. BRANCH, Vice-Pres. JOHN F. GLENN, Cashier.
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Three Per Cent. Interest Allowed in Savings Department.

riches in this life so that our lives are filled with pure thoughts and kind deeds. "We pass this way but once." God help us to begin this New Year with high resolves and noble aspirations. May we live exemplifying what is best and purest in life, making each New Year better than the last.

MRS. JNO. F. PAYNE.

SHALL THE FARMER SEND HIS SON TO COLLEGE?

By Fred Kelsey, Publisher of the University of Missouri.

The other day I advised a well-to-do farmer to send his son to an Agricultural College. "If I wanted to be sure he would never amount to anything as a farmer, I would do so," was the reply. There are a great many people who believe just as this man does that education leads away from agricultural pursuits. I remember quite well when I was a Missouri farmer boy, my father used to dampen my ardor for an agricultural college education by telling me of a schoolmate of his who went off to college, married a college girl and then came back to live with his parents on the farm. "And he never did any good," the old gentleman would conclude, "and finally got away with most of his father's property."

Since then I have been six years in close connection with the Missouri Agricultural College, first as a student, and I have learned this:

In the first place, the men who do the teaching are not, as father supposed, ignorant of the practical problems of farm life. The teachers of horticulture have their own fruit farms in the Missouri River hills; the teacher of animal husbandry is actually engaged in feeding operations upon his own farm; the teacher of dairy husbandry has been manager of a private creamery. And so it goes. Throughout the entire faculty one cannot find a man who has not had actual experience on an average farm.

In the second place, teaching is not confined to book mastery. Books are used only as supplementary to the more practical laboratory method. Two principles are at the basis of the arrangement and execution of the courses: (1), Give the boy what he will need when he goes back to the farm, and, (2), let him learn it by doing it. For example, students are required to spend three afternoons each week in the dairy building, making cheese and butter; three at work in the blacksmith and carpenter shop, so the practical is emphasized in all the courses.

It will thus be seen that this education means something quite different to a boy from what old education meant. It leads him to and not far from the farm.

H. J. Waters, Dean of the State Agricultural College, himself from a Missouri farm, gives this advice concerning the education of farmer boys:

The experience a young man gains

30 Days To Try



Why We Will Let You Use an American Manure Spreader Free

Easy Terms To Buy

It's just like this.
You need an American Manure Spreader.

It will double the value of every bit of manure you put on your land. It will pulverize and break it up, so it will mix with the soil easily.

And it will distribute evenly, so every square foot of land will get its share.

The other reasons you will find out yourself just as soon as you try the Spreader.

And we will let you try it for 30 days at our expense.

We send you the Spreader and prepay the freight. You use it a month. Before the 30 days are up, you will wonder how you ever got on without it.

The Spreader will practically earn its own cost before you send us a check. We give you a liberal allowance of time in which to pay for it.

And if you shouldn't find it exactly as represented, you send it back at our expense, and the trial costs you not a shilling.

We can afford to make you this offer because we know that our American Spreaders are well made, on correct principles, and that they will stand the Test.

They represent twenty-five years study and experience. Their good points are the result of our knowledge of field needs. We have developed them along practical lines.

American Spreaders are carefully and sensibly constructed, and they show it.

We own and operate the largest Manure Spreader plant in the World. We turn out more machines every year than any other

manufacturer. Our ample capital enables us to sell our Spreaders on long time.

We sell direct to you because we want to keep in close touch with users of our Spreaders.

This way we get a chance to tell you how to use them to best advantage and why our way will give best results.

We will tell you all about Manure Spreaders, and how to spread manure, so that you will be able to select a size best suited to your needs—and you have our 5 sizes and 9 styles to select from.

When you buy from us you get just the kind you should have to do your work best.

We don't belong to any trust.

We are an independent concern.

Write today for our **FREE** catalog. Tell us how much land you own, how many horses you keep and how many head of cattle, sheep and hogs you have, and we will give you the Government statistics as to the annual value of your manure crop.

We will also send you a little booklet telling all about "Our New Selling Plan."

It will interest you and save you money. Ask at once. You will be glad if you do.

WHAT MR. HILL SAYS:

NANTICOKE, Pa., Dec. 12, 1905
AMERICAN HARROW CO., Detroit, Mich.

Dear Sirs:—Enclosed you will find notes, duly signed, for spreader.

I am very pleased with the construction of the American Spreader, all its parts seem to be made for long service. The work it performs in three mowings is better than I have been able to do with the fork in 25 to 30 mowings and I anticipate its results to be far ahead of anything I have had in the past, especially on the hay-fields, as it uses the manure into such small particles, as not to smother the smallest tuft of grass. Your courteous treatment and prompt shipment of machine leaves nothing to be desired and I have no hesitation in saying I am a well satisfied customer.

WILLIAM J. HILL, Nanticoke, Pa.

American Harrow Co., 6228 Hastings St., Detroit, Mich.

Money Back if Not the Best

LET US SHIP YOU A "SURE HATCH" TO TRY at our expense for freight, with the positive agreement on our part that if it doesn't pay its cost with one hatch you can send it back at our expense and get your money —with the positive agreement that it must out-hatch any other make of Incubator, or your money back.

How long could we stay in business if "Sure Hatches," sold on these liberal terms, and with a five-year guarantee, failed to work to the satisfaction of the purchaser? Well, in eight years we have sold nearly 60,000 machines on these terms, and our business is booming all the time.

There's Money in the Poultry Business

If you use the Sure Hatch Incubator and follow the plain, practical directions of the Sure Hatch Poultry Manual.

The prices of Sure Hatch Incubators are \$7.50 and up, depending on the size. We pay all freight to your railroad station, no matter where you live. And we pay the freight back if after 6 weeks, 6 months or 6 years trial it fails to do the work. No other incubator company in the world dares to make such a long-time guarantee.

Drop us a line today and get the Free Catalogue and Poultry Manual. Just a postal card will bring it by return mail. Address either office.

SURE HATCH INCUBATOR CO.

Box 381 Clay Center, Neb.

Dept. 27, Indianapolis, Ind.



on the farm is a most valuable asset. He should not throw it away by entering some other profession in which this experience is of no special value. This is particularly true when we consider the extent to which most of the professions are crowded and the unusual opportunities now offered in agriculture. Every farm boy in Missouri should supplement this experience by training in a College of Agriculture, so as to be prepared for the greatest possible success."

GOOD LOOKS.

Take care of your face. Personal appearance makes a big difference in your chance for success. It is not necessary to be handsome, but nobody likes to look at a face that is irritated and broken out. There would be less face trouble if every shaver would use real shaving soap, made especially for this purpose, instead of laundry or toilet soaps. The J. B. Williams Co., Glastonbury, Conn., make the "only soap fit for the face." In another column they offer to send a free trial sample of Williams' Shaving Soap.

Gravel Knoll Farm,
Chesterfield Co., Va., Dec. 18, 1905.
Editor Southern Planter:

Having been a reader of the Southern Planter for over a year, and finding it to be the best agricultural paper I ever read or subscribed for, I decided some time ago to write you my unsolicited testimonial. Have read a good many different farm papers for the last fifteen years, but found none so full of practical and correct information for the farmers, especially for the Southern one, as the Southern Planter. I do not think any farmer could go amiss if he would carry out your teaching to the letter.

The Southern Planter ought to be advertised extensively in other leading farm papers so as to reach the western and northern farmer, of whom there are thousands who would come to Old Virginia if they only knew of the agricultural possibilities of this state. And how can they learn better than by reading the Southern Planter?

Wishing you a Merry Christmas and a Happy New Year, I am,

Yours sincerely,
M. A. BERGMANN.

Warwick Co., Va., Nov. 18, 1905.

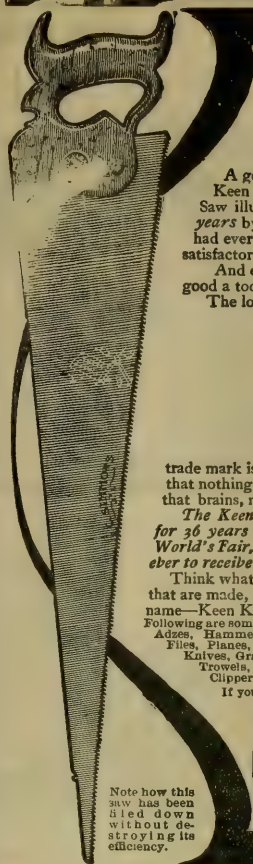
We derive a great deal of information from the Southern Planter, and wish every man interested in the farm could have a copy always before him.

BENSON, PHILLIPS & CO.

Henrico Co., Va., Dec. 13, 1905.

I certainly have profited by reading The Southern Planter and only wish I had followed its directions more closely; I would be dollars better off to-day.

J. E. HAWKINS.



Note how this saw has been sited down without destroying its efficiency.

Saw Service

A good example of the remarkable service given by Keen Kutter Tools is shown in the Keen Kutter Hand Saw illustrated here. This saw was used for *twelve years* by a carpenter, who pronounced it the best saw he had ever used in thirty years experience, and as perfectly satisfactory in every respect.

And every other tool in the Keen Kutter line is as good a tool of its kind as Keen Kutter Hand Saws. The long life of tools bearing the

KEEN KUTTER

trade mark is not chance or accident. It is due to the fact that nothing is spared to make Keen Kutter Tools the best that brains, money and skill can produce.

The Keen Kutter Line has been Standard of America for 36 years and was awarded the Grand Prize at the World's Fair, St. Louis, being the only complete line of tools ever to receive a reward at a great exposition.

Think what it means to you to be able to buy the best tools that are made, of every kind, simply by remembering the one name—Keen Kutter.

Following are some of the various kinds of Keen Kutter Tools: Axes, Adzes, Hammers, Hatchets, Chisels, Screw Drivers, Auger Bits, Files, Planes, Draw Knives, Saws, Tool Cabinets, Scythes, Hay Knives, Grass Hooks, Brush Hooks, Corn Knives, Eye Hoes, Trowels, Pruning Shears, Tinners' Snips, Scissors, Shears, Hair Clippers, Horse Shears, Razors, etc., and Knives of all kinds.

If your dealer does not keep Keen Kutter Tools, write us and we will see that you are supplied.

Every Keen Kutter Tool is sold under this Mark and Motto.

"The Recollection of Quality Remains Long After the Price is Forgotten."

Trade Mark Registered.

SIMMONS HARDWARE CO.,

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Send for Tool Booklet.

"Paints that stay Painted."

PAINT is what you need. Do you know that PAINT will preserve and improve your property? PAINT will give your property a prosperous appearance. PAINT will increase the value of your farm. We have PAINT on hand for everything—PAINT for roofs and barns. LYTHITE COLD WATER PAINT. Carriage and wagon PAINT. Our "Standard" house PAINT is ready-mixed, and for the money no PAINT can surpass it. Write us for PAINT prices and color cards.

JOHN W. ATKINSON & CO.,
Richmond, Va.

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In this list will be found prices on papers, magazines and periodicals which are most called for by our readers. We have club rates with nearly all reputable publications, and will quote them on request:

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With
Alone. S. P.

Times-Dispatch, Richmond, Va.	\$6 00	\$6 00
Times-Dispatch (without Sunday)	4 00	4 00
News-Leader, Richmond, Va.	3 00	3 00
The Post, Washington, D. C.	6 00	6 00
The Sun, Baltimore, Md.	3 00	3 40

THRICE A WEEK.

The World, New York	1 00	1 25
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WEEKLIES.

Times-Dispatch, Richmond, Va.	1 00	1 25
Central Presbyterian, Rich- mond, Va.	2 00	2 25
Religious Herald, Rich- mond, Va.	2 00	2 25
Southern Churchman, Rich- mond, Va.	2 00	2 25
Harper's Weekly	4 00	4 25
Breeders' Gazette	3 00	1 15
Country Gentleman	1 50	1 75
Board's Dairyman	1 00	1 80
Horseman	3 00	3 00

SEMI-MONTHLY.

Kimball's Dairy Farmer....	1 00	75
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MONTHLIES.

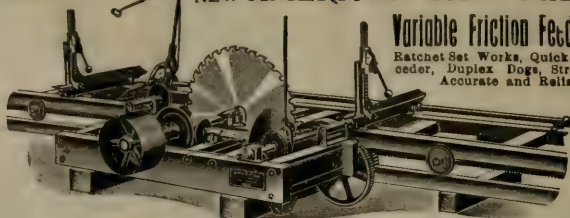
The Century	4 00	4 25
M. Nicholas	3 00	3 25
Lippincott's	2 50	2 50
Harper's Magazine	4 00	4 00
Harper's Bazaar	1 00	1 40
Scribner's	3 00	3 25
American	1 00	1 35
Cosmopolitan	1 00	1 35
Everybody's	1 50	1 75
Munsey	1 00	1 35
The Strand	1 00	1 35
Madame	1 00	1 00
Argosy	1 00	1 35
Review of Reviews	3 00	3 00
Field and Stream	1 50	1 50
Woman's Home Companion ..	1 00	1 25
Reliable Poultry Journal..	50	75
Industrious Hen	50	70
Poultry Success	1 00	75
Blooded Stock	50	65
Successful Farming	1 00	60
Southern Fruit Grower ..	50	85
Shepherd's Criterion	50	75
Commercial Poultry	50	75

When two or more publications are wanted, the price for them can be found by deducting 50 cents from "price with Southern Planter."

We cannot under any circumstances furnish sample copies of other publications.

We will cheerfully quote our best price on any list of publications submitted to us.

THE NEW AMERICAN SAW MILL



Variable Friction Feed

Batchet Set Works, Quick Re-
order, Duplex Dogs, Strong
Accurate and Reliable!

Best Material and Workmanship, LIGHT RUNNING, Requires Little Power, Simple, Easy to Handle, Won't Get Out of Order.

With 4 H. P. Steam or Gasoline Engine Guaranteed to Cut 2,000 Ft. Per Day \$150 Says It on cars at factory, Freight Very Low.

Seven Other Sizes Made. Also Edgers, Trimmers, Shingle Machines, Lath Mills Rip and Cut-Off Saws, Drag Saws, Cord Wood Saws and Feed Mills. Catalogue Sent Free.

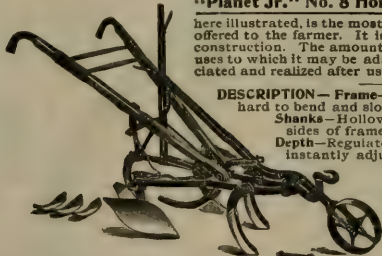
On January 31, 1906, W. H. Greenwood, of Bennington Vt., said: "I am using your No. 3 Saw Mill with a 15 H. P. Engine and average 3,000 feet per day. I am very much pleased with your machinery."

AMERICAN SAW MILL MACHINERY CO., 137 Hope St., Hackensack N. J. N. Y., Office
636 Engineering Bldg. Agents in Richmond, Norfolk, Lynchburg and Wytheville, Va.
THE WATT PLOW CO., General Agents, Richmond, Virginia.

"PLANET JR." FARM AND GARDEN TOOLS

Seed Drills and Wheel Hoes combined. Single Wheel Hoes, Double Wheel Hoes, Cultivators, Horse Hoes, Sulky Cultivators.

"Planet Jr." No. 8 Horse Hoe & Cultivator here illustrated, is the most complete of its kind ever offered to the farmer. It is stronger in design and construction. The amount of work and variety of uses to which it may be adapted will only be appreciated and realized after using one for a season.



DESCRIPTION—Frame—Extra long and high—hard to bend and slow to clog.

Shanks—Hollow steel and clamping both sides of frame, strengthening each.

Depth—Regulated by wheel and runner, instantly adjusted by lever.

Expansion—Rylever from 9 to 25 inches.

Side Hoes—Are for taking from and putting to the crop. Set at angles and are reversible.

Can be removed and small steels put on.

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FULL LINE FARM TOOLS AND SUPPLIES

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Farquhar Pea Huller

Every farmer who raises peas and beans, no matter how small the quantity, needs a Farquhar Pea Huller. It will pay for itself in one season.
HULLS FROM 10 TO 15 BUS. OF PEAS OR BEANS PER HOUR without breaking or cracking them. Simple and easy to operate. Can be run either by hand or light power. It is made solid, staunch and strong, best material used throughout and handiwork finished and painted.
Send for circulars with full particulars. Special discount to introduce the first machine in each locality. Also write for our catalogue of Engine, Hoes, Saws, Mills, Thrashers, Grain Drills and other agricultural implements.

A. B. FARQUHAR CO. (Limited), YORK, PA.

FARMING.

Editor Southern Planter:

The first occupations of man in trying to sustain life were probably hunting, fishing, and gathering the fruits and nuts and vegetables that grew in the woods and fields about him. These three occupations are still the chief ones of the human family to-day, and doubtless will remain so, modified, of course, to meet changing conditions.

Hunters long ago found it of advantage to domesticate some species of animals, so that when in need of meat they could obtain it with less trouble and loss of time. Leaving out the excitement of the chase, our modern stock raising industry is merely the original hunt brought up to date and delivered at our door.

So, too, are the great fisheries of the world that help to sustain the lives of the people, merely an outgrowth, an enlargement on the search of primitive man along the creeks and shoals for clams, oysters and whatever fish he could surprise and take from their hiding places with his unaided hands.

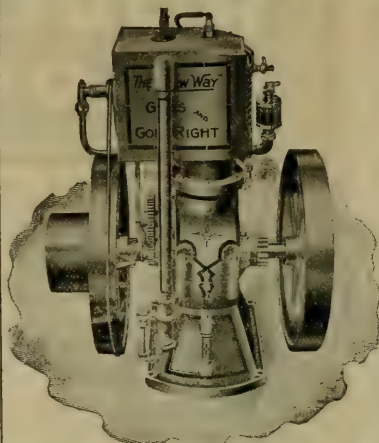
And our farming, as carried on today, is still an effort to get fruits and vegetables to supply our needs, but it is an effort put forth in a more modern, progressive and satisfactory way.

Nature, in producing a plant, does not consider the wants of other life, but strives, by natural selection, and adaptation, to protect this plant from all enemies, diseases and adverse influences, to make it suited to its environments, strong and healthy, that it may store up within its seed pods an abundance of nutrition in a condensed and available form, that it may reproduce its kind and start its offspring well in life. The object is to help itself, but the same nutritive elements condensed in the seed and other parts of many plants, for their own use, are just those required for the nourishing of man; and the fibers, caselings and chemicals, manufactured for its own protection or convenience, are often admirably suited to meet the wants of higher life; so that although the plants may endeavor to protect themselves by means of thorns, hard coverings, bitter taste, disagreeable odor, etc., man has learned in many ways to overcome them and appropriate to himself that which it has laid by for its own use.

Fruits, nuts and vegetables trying to escape their enemies and struggling for existence among thousands of other equally struggling individuals do not have a chance to do their best, nor do they always develop along those lines that make them of especial use to man. Farming means the selection of those plants that promise most and then aiding them in every way so that they supply most abundantly and conveniently those things that we need.

When man first began actually to till the soil is not definitely known. Many hundred years ago he noticed that some wild plants that furnished

Here is the "New Way" Air Cooled Gasoline Engine.



"THE FAN KEEPS IT COOL"

LLOYD R. PEERY, Eastern Sales Agent.

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YOU SHOULD BUY IT:

- 1.—No Water Tank to empty and fill daily in freezing weather.
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- 5.—No carbureter gasket or carbureter needle valve.
- 6.—The oil from one cup lubricates piston, cylinder and all bearings automatically and with certainty.

The greatest specialty in a gasoline engine for the use of farmers that is on the market.

Write for our Special Introductory Proposition to first purchaser in each county.

Agents Wanted Everywhere. Exclusive Territory. Write for Catalog and Testimonials.

STEPHENS CITY, VIRGINIA.

PLANTER'S ENGINES

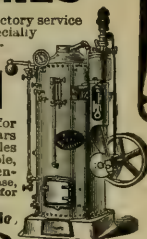


No other power gives such all round satisfactory service as steam. A line of engines and boilers specially adapted to the needs of farmers and planters is

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They take but little space, are famous for efficiency, quick steamers, last many years and cost little for repairs. Many styles from 3 h. p. up, include Upright, Portable, Horizontals on skids or for walling in, engines mounted on boilers or with separate base, etc. Don't buy any power until you have sent for our book, "Power Economy and Efficiency."

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Levels especially designed for TERRACING, DITCHING, DRAINAGE, IRRIGATION, RICE CULTURE, and also for ROAD BUILDERS, CONTRACTORS, etc. Levels with all the latest improvements and that are simple, durable, accurate and also very easy to adjust, correctly and to operate. Prices range from \$5. to \$35, depending on the attachments, size of telescopes, etc. We build the level that suits your purpose and that will satisfy you in quality and price. Write for our complete catalogue and let us show you their several advantages.

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BIG MONEY! LITTLE WORK!!

50 per cent Cash Commission

Agents wanted to sell our Fresh Flower and Vegetable SEEDS. 50 per cent Cash Commission Quality guaranteed. Prices $\frac{1}{2}$ to $\frac{3}{4}$ less than regular. Hundreds making big money selling our reliable stock. Write for Catalog & Order Blanks. Box 47 John R. Risdon Seed Co., Riverdale, Ill.

more or less satisfactory commodities, thrived better and were more liberal in their output under some conditions than under others. . He went to work to supply those conditions, and so farming began. To-day it is the same, only we know more about plants now, have greater facilities for doing work, and have seeds that have come through many generations of prosperous, thrifty and well trained ancestors to produce for us superior products; seeds that selection and care have freed from many of the objectional characteristics of their undeveloped kin and that have taken on new and useful properties.

The first care then, in farming, should be to select seeds that have the best ancestry, and have developed in them the traits or habits of life that best fit them to produce those things that we need for our comfort and welfare. For instance, wheat, corn, cotton, etc., all have their wild prototypes, savages, we may say, of the vegetable world, and much inferior to their civilized descendants. And, as every good farmer knows, even the cultivated sorts are not of equal worth, and for the same reason that old field scrub cattle and pine rooster hogs are inferior to thoroughbred animals.

By careful selection each year in the field of seeds for the next year from those plants that have, by cultivation or circumstances, reached nearest to the ideal, there may be continued improvement. Cotton of longer, stronger staple and more pounds to the acre, wheat grains larger and more abundant and richer in protoids, carbohydrates and fats, our vegetables, more nutritious and palatable, our fruits more delicious and healthful.

The second consideration is the preparation of the ground, making a fit place for the seeds to germinate in and grow. Plants are dependent upon their root system for their life; for while the leaves gather carbon from the air, they are largely supported by the moisture and mineral matter taken up by the root and its branches. Take a thrifty plant and allow the soil around it to get hard and dry, see how quickly it sheds its leaves and dies. Land should be plowed deep, and well pulverized so that even the smallest roots can push through everywhere in search of moisture and food.

Next is the fertilization. Everything else supplied if the food elements necessary for the sustenance of the plant are lacking the plant starves to death. Nitrogen, phosphorous and potash seem to be the plant food most generally lacking in our soils, and often have to be supplied before we can get profitable crops. But this is not all. Humus, warmth, moisture and often a special kind of bacteria must be present or the plant life will not prosper.

After the plant has been given start, comes the cultivation, removing the weeds and briars that would

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STANDARD FOR 14 YEARS.

The oldest prepared roofing on the market, and the first Ruberoid Roofs laid, many years ago, are still giving satisfactory service under the severest climatic and atmospheric conditions.

Contains no tar or paper; will not melt, or tear. Acid fumes will not injure it.

Outlasts metal or shingles. Any handy man can apply it.

There is only one Ruberoid Roofing, and we sell it. You can verify its genuineness by the name on the label and on the under side of every length of Ruberoid Roofing. Send for samples and booklet.

A large stock of Corrugated and V. Crimp Roofing always on hand.

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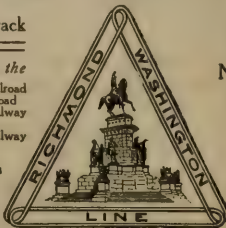
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Link

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Pennsylvania Railroad
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Between All Points
via Richmond,
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W. P. Taylor, Traffic Manager

The Gateway
between the
North and the South



Fast Mail
Passenger
Express and
Freight Route

STOP THAT COUGHING!



If you value your health, or health of your children, do not allow a cough, croup, or whooping cough to go without giving it prompt attention; there is no telling what might be the result; such conditions are not to be trifled with. Grippe, Pneumonia, and Consumption, or serious complications are likely to result unless promptly treated. The best and quickest cure for a cough, cold, croup, or whooping cough is



I have five children, and all of them have had severe colds and croup, and I find that HONEY-TOLU is a most excellent remedy, and would not be without it in the house. It has always been satisfactory, and gives prompt relief in croup and coughs with the first two or three doses, loosens their colds and improves them in every way.

Mrs. WM. McCOLLISTER,
SWEDESBORO, N. J.

HONEY-TOLU

CURES

Coughs, Colds, Croup

and

THROAT AFFECTIONS

ABSOLUTELY

I cannot praise too highly your HONEY-TOLU; it is the KING of all cough remedies. I had a bad cold, with a severe cough for weeks, and tried everything without avail, when a friend recommended Honey-Tolu to me. I procured a bottle, with the result that my cold is entirely cured. I always keep it for the use of my family. I advise everyone suffering with a cough or cold to use Honey-Tolu and be cured.

S. C. HUTCHINSON,
PETERSBURG, VA.

This old reliable and efficient remedy has stood the test of years, and is recognized and prescribed by leading physicians as the one cough cure that is sure to cure, and safe to administer to adults or children. It is never-failing in results, is pleasant to take and always cures. We have thousands of testimonials to these facts. Some unreliable dealers in their greed for profit, at the risk of your health, may prevail on you to try something else, but if you want a cure, insist upon having Honey-Tolu—take no substitute.

ALL DEALERS SELL IT—25c.

GILBERT BROS. & CO., Manufacturers
BALTIMORE, MD.

choke it out or hinder its growth, allowing the sunshine to play around its leaves and change the dead chemicals into parenchyma or actual living tissue, stirring the soil that it may hold its moisture and remain soft and warm, protecting it from its enemies.

To find farming uninteresting is to find no interest in the essential principles of life itself; to see nothing but a tiresome digging and plowing, is to have an unfortunate lack of knowledge of nature's laws and methods. Not to feel stronger and freer at the scent of newly plowed land; not to feel a thrilling pulsation of new life when refreshing rains gladden the growing crops, temper the hot winds and make balmy and sweet-smelling the summer breeze; not to love to see and to make any life grow into a useful, healthy and beautiful specimen of its kind, is to miss some of the purest and best pleasures that life can give. To find farming unprofitable is to be defeated in an industry upon the successful continuance of which depends a man's civilization and progress.

Centers of civilization have always been rich productive lands; here intellect and wealth (all else being equal) are more at home and grow and increase.

This should be especially pleasing to the people of this section, for here it seems to me, is verily the garden

spot of the earth for the production of all the essential crops, without the enervating effect of extreme heat, or a long rainy season. Here we have a healthful climate, good soil, good laws that give every man a fair chance, and good people, the best in the world.

But what progress has really been made in this great industry? Wheat has been grown for food as far back as history records. We found the natives growing corn and potatoes when America was discovered. Cotton fabrics have been in use as far back as we can trace. This is all true, but compare the limited supply of wheat formerly grown, ground by hand in stone mortars made into a coarse bread and helping to supply only a few, with the millions of bushels now yearly raised, harvested and prepared into clean nutritious flour, distributed to the ends of the earth by modern methods and machinery. Not lessening the supply of labor but making it possible for more men to live, and to live easier.

Note the vast fields of Southern cotton, planted, fertilized, ginned, spun into warm fabrics and placed within the reach of millions of men, rich and poor and, remember, that only a few years ago the lint had to be picked from the seed by hand then carded and twisted and laboriously woven into a few yards of coarse cloth to

meet the actual life needs of a very small number of the elect. Go into an uncultivated field and find a relative of our modern apple tree, struggling for life with the weeds and shrubs that crowd for its place, offering to the passing animal its small insipid fruit that its seeds may be scattered and again grow almost useless plants. Compare this with the strong flourishing tree of our Piedmont section, that has been grafted, planted, sprayed and well cared for, bearing yearly barrels of large, luscious Winesaps, Grime's Golden and York Imperials. Look at the May Pop, the Ground Cherry and the Partridge Pea, and then at the beans and tender snaps of our garden, the large and beautiful Ponderosa tomato and the Georgia watermelon.

Notice the wild rose, pretty, it is true, yet short lived and surrounded by a protecting tangle of briars; the wild blackberry along the hedges, all imperfect and pithy; the wild cherry, small and bitter; the Jimson weed (*Datura stramonium*) rank and poisonous, then visit Luther Burbank's farm in California and see the descendants of these as there treated. He makes the rose cease to fear for its life, drop its thorns and luxuriating in a suitable environment, raise its head high upon a smooth and graceful stem, double its petals and shed around it a delightful fragrance, show-

Slow Speeding But Fast Grinding.

Grinds
Cotton Seed,
Rice,
and
Kaffir Corn
in the head.



Don't think that in order to grind fast a mill must run at break-neck speed, heating the feed, wearing out parts and causing breakage. Here is a mill that with just about 1-3 others' speed, grinds more feed than any other mill made. Its patented grinding process does it. The

"CORN BELT" FEED MILL

gradually reduces ear corn or grains by shearing and cutting. That's why it grinds so fast with so little power; why it is not subjected to the strains put upon other mills; why it does not choke like other mills. Guaranteed to grind snapped corn without choking. Made in two sizes, grinding from 50 to 80 bushels ear corn and 80 to 150 bushels shelled corn and grains per hour.

SOLD ON 20 DAYS' FREE TRIAL WITH FULL GUARANTEE.

We make Power Mills, 4 to 20 H. P. 2 H. P. Sweep Mills. 4 Horse Combined for power purposes. Don't fail to write and get our free Catalogue,
SPARTAN MFG. CO., 224 Chambers St., Galesburg, - - Illinois.

GOOD ROADS?

THE UNIT MACHINE SOLVES THE PROBLEM.

It is the Simplest, Easiest Managed, and Least Expensive Road Machine. Requires but one Man and one Team to Operate it.



SELF DUMPING WHEEL SCRAPER.



THE UNIT.



SOLID STEEL SCRAPER.

PRACTICAL MEN who have tested it are a unit in their expressions of opinions regarding the UNIT Machine.

John E. Moore, Com., Jackson, N. C.—The more I use the UNIT the more I am pleased with it. My overseer with one team and three men build more and better road than I did with 40 men with picks, shovels, etc. It saves labor enough to pay for itself in two days use.

C. L. Russell, Com., Abbeville, Va.—The UNIT gives perfect satisfaction and is a great labor saver.

G. R. Stone, Supt., Ordsburg, Va.—I am well pleased with the UNIT machine.

G. M. Walker, Supt., Willcox, Wharf, Va.—The UNIT does work I cannot do with the heavy grader. I recommend it to all interested in road building.

M. L. Norvell, Island, Va.—The UNIT does all you claim for it. I am more than pleased with it.

T. A. Shands, Carson, Va. The UNIT gives perfect satisfaction. With one man it does more work in a day than ten men with the old methods.

John K. Wesley, Somerset, Ky.—I find the UNIT an excellent machine. Two horses handle it easily. With it and a plow I can grade more road than 25 men with the usual tools.

H. W. Hunter, Water Valley, Miss. (Has bought four UNIT machines.) With two UNIT machines and two horses each, I can do $\frac{1}{2}$ more work than two men with the four wheel grader and eight horses, and do it equally as well. I would not undertake to grade roads without the UNIT.

C. H. Broome, Charleston, Miss.—I find the UNIT satisfactory in every respect. I have a heavy grader that cost \$250.00. If I had seen the UNIT first I would never have bought the large one. I am building 200 miles of road and with the UNIT I am doing the work at $\frac{1}{3}$ the cost of the work done with the large machine.

M. L. Wallace, Rutledge, Ga.—The UNIT machine gives excellent satisfaction.

G. D. Parry, Madison, Ga.—I am much pleased with the UNIT machine.

Dr. Chas. McCulloch, Howardsville, Va.—The UNIT machine works beautifully.

G. M. Lynch, Pickens, S. C.—We are delighted with the UNIT machine.

A. L. Calhoun, Jr., Clio, S. C.—The UNIT is all you claim for it.

J. O. D. Withrow, Ellenboro, N. C.—All are well pleased with the UNIT. The machine with two mules and a plow with two, will do all the work and as fast as 40 men with shovels and picks.

J. T. Reed, Prest., Board of Rev., Birmingham, Ala.—Our overseers are well pleased with the UNIT and say it will save labor enough to pay for itself in a few days use.

We will be pleased to ship a UNIT Machine on trial to responsible persons.

THE RUSSELL and IMPERIAL FARM WAGONS. Steel axle and Thimble Skein.

NEW HOLLAND FEED MILLS. Lowest in prices, easiest running and greatest capacity.

NEW HOLLAND WOOD SAWS. For wood, poles, ripping boards, etc.

VICTOR COMBINED FEED MILL and HORSE POWER. For ear or shelled corn or grain, and is a first-class Two or Four Horse Power for running other machines. Every farm wherever any stock is kept should be equipped with one of these. The price brings it within reach of all.

DISC HARROWS, LEVER HARROWS, FIELD ROLLERS, MANURE SPREADERS. PEA HULLERS, FERTILIZER and LIME SPREADERS. A most complete line of all sizes.

BALING PRESSES. For Hand or Power. CORN SHELLERS. For Hand or Power.

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MANFRED CALL, Gen'l Manager, RICHMOND, Va.

ing a responsiveness to surrounding nature and a beauty typifying a life well lived.

He changes the color of the blackberry to white; makes the chestnut grow three times its usual size; combines the plum and the apricot into a new fruit—the plumcot—and makes the potato bear fruit upon its vines; the old Cactus of the desert drops its spines and holds up to a man a delicious food; new flowers that never before gladdened the eyes of man here bloom in yard and garden.

Can we ask if improvements have been made in the science of farming? Is there not a beautiful, interesting and unlimited field open to the farmer to-day?

Not only are individuals at work upon the problems of agriculture, discovering new and wonderful truths and opening up daily new possibilities, but experiment stations belonging to the Government or separate states are continually at work throughout the country, testing and improving seed, studying plants, soils and methods and giving to the world the results of their work.

This is farming up-to-date. But the farmer himself—how about him? The man who knows about farming, has exhausted the subject (?), who plants his nubbins of degenerate corn each year on the same hard-baked, gully-washed hillside; the man who does not believe in science, and makes 300

pounds seed cotton per acre a good season; wont send his children to school; takes no paper or magazine; supports four worthless dogs, and raises yearly off his neighbor's fields three razor-back hogs, averaging 32 pounds apiece, is worse off to-day than ever for he is way behind. Such a man cannot compete with the average man of to-day and will be weeded out by reason of inability to survive, unfit for the struggle.

The farmer open to receive the good things in life; who is still studying plants and their needs; who sends his children to one of the good schools now scattered conveniently throughout the country; who attends the church just down the road; who inquires the price of cotton over his telephone; who takes from the daily R. F. D. his mail, containing, perhaps, a bottle of cultures with which to inoculate his clover or pea seed; who reads the best literature, either from the circulating district library or from his own private shelf, containing, we may notice, among others, works on Chemistry, Botany, Entomology, Bacteriology and other sciences relating to modern agriculture; who has in his yard the prettiest flowers that careful selection, pollinating, hybridizing, grafting and skilled cultivation can produce; who has daily the choicest meats, the freshest, most nutritious and delicious fruits and vegetables in the world; who has machinery to help

him in his work; who is a free man in God's own country, surely is blessed among men.

We may say that this is merely a comparison of a rich man and a poor one. Well, the man who has it in him can get these things and keep them; the man who hasn't, can't and possibly does not deserve them. It is the same in all other lines of work, only in farming there are possibilities and advantages scarcely to be found in any other occupation.

GEO. SPENCER BAKER.

Louisburg, N. C.

Monroe, Mich., Jan. 25, 1905.

Dr. S. A. Tuttle,

Dear Sir:—I have been using your Elixir for catarrh fever on my horse with great success, after trying several other so-called remedies without any returns.

Send me one of your veterinary books.

Yours very truly,

F. G. Strong.

Carteret Co., N. C., Nov. 21, 1905.

Long may the Southern Planter live to spread the long felt want of knowledge to the man behind the plow.

SAML. R. WEEKS.

Franklin Co., N. C.

The Southern Planter is my farm guide and I could not get along without it.

JAS. C. PEACE.

STOP AT THIS PAGE AND READ

Save "BARBOUR" or "HUGHES"



in that next order for Carriages, Sureys, Buggies, Phaetons, Stanhopes, and Run-



abouts, and we guarantee that you will receive strictly

"True Blue" VEHICLES.

We positively do not make any other than reliable goods. There is a dependable warrant behind them all. We are builders of Virginia made goods Built on honor, and sold for the future as well as the present. Write for catalogue and SPECIAL PRICE list.

RICHMOND BUGGY & WAGON CO.,

W. G. ADAMS Sales Manager.

1433 E. Main Street., Richmond, Va.

Latest Improved FARM IMPLEMENTS FOR 1905.

HAND POWER CUTTER.



These machines sell at sight. They have heavy fly wheels and make three cuts to each turn of the crank. They will cut hay, straw or fodder, and will cut $\frac{1}{2}$ to 2 inches. They are shipped K. D., securing the lowest possible freight rates.

CUMBERLAND VALLEY CORN SHELLERS.

One and Two Hole.

The frame is made of thoroughly dry hard wood. The joints mortised, tenoned and bolted. The bearings are bolted on the frame instead of screwed. The iron work is made from the very best material. Every piece is carefully inspected before being put on. The machine is high-grade all the way through. It is handsomely painted, striped and varnished.

SCIENTIFIC FEED MILLS, All Sizes



THE SCIENTIFIC GRINDING MILLS

Are unequalled for grinding ear corn, shucks on or off Corn, Oats, Wheat and all other grains, single or mixed



ROSS...

Fodder Cutters, Fodder Shredders, Cutters for all purposes, Corn Shellers, Grinding Mills, Horse Powers and Wood Saws.



POWER MILLS in five sizes, 2 to 80 horse power.

Scientific Sweep Mills in five sizes. Geared—plain and combined, with horse power.

Aspinwall Planters, Potato Sorters and Cutters.



Wood Saws for long or short wood. Wood or Steel frame.

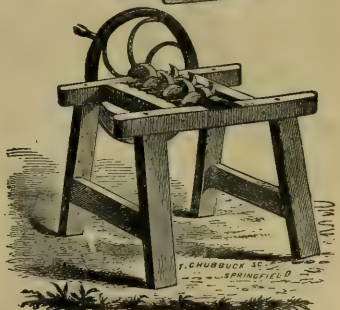
The Lyons Improved Fanning Mills.

Frick and Aultman and Taylor Engines, Saw Mills and Threshers.

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58 styles and sizes. For horse or steam power. Write for prices and catalogues.

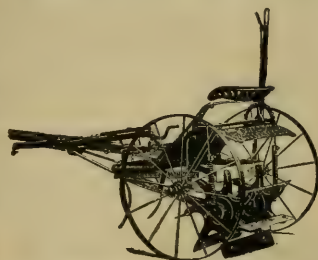
BUCKEYE FORCE PUMPS, PORCELAIN WOOD PUMPS, WOOD AND STEEL WINDMILLS.



Gales & Whittemore's Vegetable Cutter. Write for circulars and prices.

DON'T FORGET! All the merchants in town who claim to sell Oliver Chilled Plows and Repairs only sell the Imitation, Bogus, Cheap Goods. The only place in Richmond, Va., to buy Genuine Oliver Plows and Repairs is at 1436 and 1438 E. Main street.

Repairs carried for everything we sell.



BROWN 6 or 7 Row Stalk Cutters.

Write for circulars and prices.

National Road Machine, Drag and Wheel Scrapers and Dump Wagons. "Quality" the best Prices right. Carried in stock by the car load. Write for catalogues, prices and testimonials.



Special prices given on Studebaker and Brown Wagons, Buggies and Carts.



Kemp's Twentieth Century Improved Manure Spreader. Made in three sizes. Write for special Catalogue and prices.

HENNIG & NUCKOLS, Successors to CHAS. E. HUNTER, 1436-38 E. Main St., RICHMOND, VA

A CALENDAR WITH A PERSONALITY.

Some people thing the calendar crop has fallen off in recent years. However that may be, we are getting our full assortment.

Te kind we like best of all is the one published by N. W. Ayer & Son, the "Keeping Everlastingly At It" advertising agents of Philadelphia. For purposes of a business calendar nothing we know of equals it, yet as a specimen of the printer's art, it takes highest rank and will harmonize with the finest office furnishings and decorations.

The epigrams printed in the blank spaces will interest those who are interested in advertising, and that means an increased number every year. They are good reading and furnish a hint as to the why of the success of this firm and its clients.

The publishers have issued this calendar for many years and state it as their experience that when a business man has lived with it for a year, he is unwilling to do without it. The edition is limited; while they last twenty-five cents to N. W. Ayer & Son, will bring one.

A clergyman, in Richmond, Va., tells this story at his own expense: "One Sunday I was accosted by a quaint old woman, housekeeper in the employ of a dear friend of mine. 'I want to tell you, sir,' said the old woman, 'how much I enjoy going to church on the Sundays that you preach.' Expressing my appreciation of the compliment, I said that I was much gratified to hear it, adding that I feared I was not as popular a minister as others in the city, and I finally asked: 'And what particular reason have you for enjoyment when I preach?' 'Oh, sir,' she answered with appalling candor, 'I get such a good seat then.'"

"Hullo Georgie," said a North countryman, on meeting a friend, "where ha've you been this while back?"

"Man," said Georgie, "did ye no' know I was laid down w' that trouble they ca' influenza?"

"No, man, I didn't hear o't; and what kind o' trouble is it?"

"Well, I can hardly explain," said Georgie; "bit efter yer getting better ye feel lazy like; in fact, ye don't feel inclined tae dae onything."

"Do ye tell me that? Weel I've been troubled that way this last twenty years, and couldn't find a name for it."

Chillicothe, Ohio, Dec. 15, 1905.
The Southern Planter is O. K.

SCHILLER BROS.

Mineapolis, Minn., Dec. 14, 1905.
We have only been taking your paper for a little while, and are perfectly delighted with it. It is the best we ever read, and we don't see how any Southern farmer works without it.
CORSON GRAIN CO.

The Art of Fine Plumbing

has progressed with the development of the science of



sanitation and we have kept pace with the improvements. Have you? Or is your bathroom one of the old fashioned, unhealthy kind?

If you are still using the "closed in" fixtures of ten years ago, it would be well to remove them and install in their stead, snowy white "Standard" Porcelain Enamelled Ware, of which we have samples displayed in our showroom. Let us quote you prices. Illustrated catalogue free.

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When corresponding with our advertisers always mention the
SOUTHERN PLANTER.

A COMPETENT JUROR.

In the course of a trial the other day it was discovered that one of the jurors, a native of Germany, could not understand a word of English. He had gone through the mill of being summoned, of answering the summons, of being empanelled, of hearing the opening statement of learned counsel and of studying the judge's pose of somnolent dignity, and, after all that, was discharged. Why, it is hard to understand. In these times of contempt by court for everything but the form of a jury, of a system of selecting jurors to the end that the average lack of intelligence of a community is ably represented in every 12, to the disgust of the average prisoner claiming trial by his peers, a man who cannot understand a word of English would seem to be the most competent kind of a juror.

Scotland Co., N. C., Dec. 13, 1905.
I think you are doing a noble work for Southern farmers.

N. T. FLETCHER.

Richland Co., S. C., Dec. 14, 1905.
The Southern Planter is one of the best of agricultural journals and so reasonable in price that I don't see how I can dispense with it. Send it right along until further notice.

CHAS. KINSLER.

Norfolk Co., Va., Dec. 15, 1905.
To say I have profited by reading it in the past, would not do justice to the Planter. I have often profited from one copy more than the cost of a year's subscription.

It is, in my estimation, the best agricultural paper—especially for this state—published. Your practical suggestions of work for each month, save me much thought and care, as I can do away with the trouble of charging my memory with important details.

THOMAS HOLLAND.

Halifax Co., Va., Dec. 14, 1905.
I can't do without the Southern Planter.

J. EARLE DDUNN.

Campbell Co., Va., Dec. 12, 1905.
I feel there is no investment of the same amount pays so well, and I find there is a steady improvement in the Southern Planter's get-up from year to year.

C. S. HUTTON.

Chesterfield Co., Va., Dec. 9, '05.
I take a number of agricultural papers, but think the Southern Planter the best of them all.

ARTHUR R. WINGATE.

Spotsylvania Co., Va., Dec. 16, 1905.
I could hardly do without the Southern Planter, for it is full of the most valuable and practical suggestions.

D. J. WALLER, Jr.

A small church was sadly in want of general repairs, and a meeting was being held to raise funds for that purpose. The minister having said that to do the work \$500 would be required a very wealthy—and equally stingy—member of the congregation rose and said he would give a dollar. Just as he sat down, a lump of plaster fell from the ceiling and hit him upon the head, whereupon he rose hastily and called out that he had made a mistake—he would give fifty dollars. That was too much for an enthusiast present, who, forgetful of everything, called out fervently, "O Lord, hit him again!"

Pulaski Co., Va., Nov. 28, 1905.
The Southern Planter knows conditions here in the South and gives the advice we need.

JNO. A. CARNAHAN.

Mecklenburg Co., Va., Nov. 27, '05.
I like the Southern Planter very much and think everyone engaged in tilling the soil should take it. In fact I do not see how they can get along without it.

H. B. POPE.

Mecklenburg Co., Va., Nov. 23, 1905.
I think the Southern Planter the finest paper I have ever read of the kind. I am always anxiously awaiting its arrival.

W. A. SCUTHORP.

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quently. A preventive is to press every inch of the edge of the carpet, first dampening, then pressing with a hotiron. Lay a damp towel on the carpet, over this a paper to retain the steam, then iron. Steam destroys.—August Woman's Home Companion.

Lowndes Co., Ga., Dec. 8, 1905.
The Southern Planter is a fine journal and I shall always work for it.
M. J. BOYD.

McDowell Co., W. Va., Dec. 9, 1905.
You have a very excellent paper and I don't feel that I can do without it.
Dr. J. J. SKELTON.

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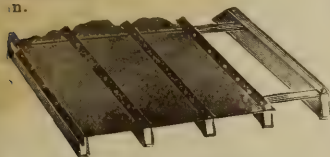
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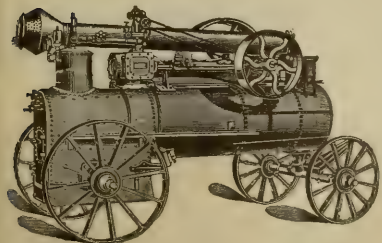
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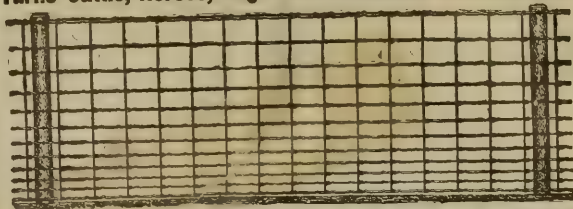
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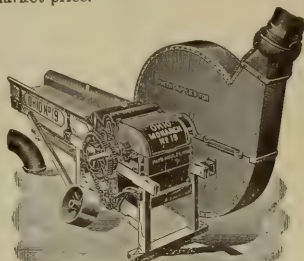
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TRUCKING, LIVE STOCK AND THE FIRESIDE.

Agriculture is the nursing mother of the Arts.--XENOPHON.
Tillage and pasturage are the two breasts of the State.--SULLY.

67th Year.

Richmond, Va., February, 1906.

No. 2

Farm Management.

WORK FOR THE MONTH.

The abnormal mildness of the season still continues, not only in the South, but generally throughout all the country. As yet, we have had practically no winter in the South, and even in the North it has been an exceptionally fine and open winter. Frosts here have been only of the lightest and we have heard of no one having been able to save any ice. It begins to look as though ice will be a scarcity next summer throughout the South. However, it is yet possible we may have some cold weather as we have known February to be a very hard winter month sometimes during the last 20 years. It will, however, be wise to let no opportunity pass of securing ice, even though it be only thin. This mildness of the weather is saving feed and making the task of carrying live stock much easier and cheaper than usual, as young stock have been able to pick up much feed out of doors that otherwise would have had to be fed to them to keep them in growing condition. We have had several cases reported to us where cattle of this kind and sheep have never yet had any winter feed fed to them and are yet looking well and improving in condition. Fall sown grain is looking well and both wheat and rye are being pastured in many places. This will help lambing ewes wonderfully and already we hear of fine lambs making good progress for the markets. Whilst the absence of a good covering of snow on the wheat in many sections of the North and West is a feature which may ultimately tend to the loss of much of the plant if a severe freezing time should come on, yet, up to the present

the prospect for a good wheat crop is exceptionally fine. Here in the South, the dryness of the fall has prevented a very luxuriant growth, but the plant is usually well set on the land and promising. We had much rather see such a growth as is now common, than one more luxuriant and tender. It will stand later frosts much better. The dryness of the land at seeding time has saved the crops from being spewed out of the ground by the frosts we have had and if the present mildness continues we may reasonably look to the crop coming through winter without serious damage from this cause. As we pointed out in our last issue the area seeded to wheat in the South is considerably above the average and with present prospects we ought to see a much larger crop than the average produced. Winter oats where sown early are looking well though like wheat, not a very luxuriant growth, but yet healthy in color and thick on the ground. Late sown crops have, however, made but little growth and their ultimate success will depend very much on the weather of this and the next month. Should these be severe we shall not expect the yield to be satisfactory. It is a great mistake to sow winter oats later than October. When the crop cannot be seeded before October, oats should not be sown until February or March, and then either the Burt or the Rust proof variety should be sown. Later than the middle of March, oats ought not to be sown in the South, except in the mountain sections where they may be sown up to the end of April. We hear excellent reports of the yield of the Burt oat and of its quick maturity. The Experiment Station at Blacksburg, Va., tested a number of varieties of oats

last year and found a very great difference in the yield. We have not yet received detailed reports of these tests but are hoping to do so shortly, meanwhile it would be well for those desiring information on this subject to write the station.

If the present mild weather should continue, much work can and ought to be done during this month, to fit the land for the crops and not a day ought to be lost in starting this work. We are glad to see that this question of utilizing the winter months for preparing the land for seeding is beginning to receive that attention which it deserves. In several recent communications from farmers in different sections of the country they have commented strongly on the way in which farmers in the South waste the great opportunities which the fine open fall, winter and early spring months give for perfect preparation of the land under the most favorable conditions. A man living in the South who thus wastes his opportunities puts himself practically in the position of the Northern farmer who cannot help himself on account of the weather. He thus loses all the advantages which his more Southern location gives him and makes his working year one only of 6 or 8 months when it might and ought to be one of at least 10 months. With one third to one-half less team, he can, if he avails himself of his opportunities, cultivate as much land as his Northern brother and do the work better and get infinitely better returns, because of the fact that he can always make at least two crops in each year and in some cases three. With such advantages as these, how is it that we hear complaints that farming cannot be made to pay in the South? It is because our people still stick in the old ruts and "lay themselves by" when they "lay the first crop by." Some will persist in saying that they cannot get labor to do this extra work. Whilst we are willing to admit that at the present time labor is scarce at old prices, yet we are not willing to admit that with the aid of the great labor saving machinery now at the call of the farmer and the payment of wages more nearly corresponding to the rates paid by the Northern and Western farmer, that labor cannot be had. We have recently discussed this matter with several large farmers having farms near the cities and they frankly admit that if they are willing to pay anything near Northern and Western rates, they can get good and reliable labor and are getting it. Many insist that they cannot afford to get this machinery and labor, but this is a very short-sighted view to take. Every manufacturer has the same difficulties to contend with

and if he is to succeed, must make the change and does it. The farmer must do the same thing. He has the same markets open to him that his Northern and Western brother has and he can get as good, or a better price for most of his crops as his Northern and Western brother, because he can get his products on the markets earlier and when the demand is greater and the prices at the best. We know farmers who to-day have all their land plowed and ready for working for the planting of the next crop. These men have kept their teams at work at every opportunity since harvesting the last crop and instead of these teams standing in the stables eating their heads of, they have been earning their living. Others and by far the larger number have not turned a furrow. Their teams have been practically idle and getting out of condition, and very shortly work will so press them, that much of the crop they thought of planting will have to remain unplanted because of the absolute impossibility of preparing the land for it in time. And yet we have had one of the finest falls and winters for working, we have ever known. We would most earnestly urge that no further "loafing" be permitted, but that without further delay the teams may be put to work and the land be well and deeply broken at once, so that it at least may get the benefit of such weathering as it can get, to make available the inert plant food in the soil. In our last issue we wrote at length on the advantages of good and deep fall and winter plowing and do not know that we can usefully add anything to this, except to say that since we wrote that article we have had letters from several farmers who confirm what we then said. One gentleman says that for years he has been plowing 12 to 13 inches deep by the rule with the result that he now gets more than four-fold the crop, he formerly got on the same land and that without the help of fertilizers. One of these gentlemen says that on 57 acres he made last year 460 barrels (2,300 bushels) of corn without the use of any fertilizer at all. Surely a good showing as the result of deep plowing. In this issue will be found communications further illustrating this point in the improvement of poor, worn out land. One of the greatest advantages conferred by winter and early spring deep plowing of land and sub-soiling the same, where the land is underlaid with clay or a hard pan, is that it enables moisture to be stored in the land for the use of the crops in the hot, dry weather of the summer, and at the same time prevents over-saturation of the surface soil with the spring rains. All crops take their food in a liquid

state only and unless there be in the soil sufficient moisture to dissolve the plant food in the soil it matters not how much plant food there be there, the crop cannot benefit by it. Hence the importance of so early preparing the soil to take and hold the rainfall which is to supply the moisture needed to make the plant food available. Whilst this is so, it is equally as important that the subsoil should be so open as to prevent over saturation of the soil with moisture, as this means waste of plant food, which is leached out instead of being conserved for the use of the crops. One of the great causes of deficient yields of crops in the South is that the plant food either naturally in the soil or put there in the form of fertilizer is not made available for the crops by being properly dissolved by moisture, largely owing to the fact that the land is plowed so shallow that the land has not time or depth enough of soil to accumulate and store the needed moisture. This moisture is also needed to permit of the active growth and working of microbic life in the soil upon which largely depends the extent to which the plant food is made available. Two things, at least, are essential for the promotion of this microbic life, namely, moisture and an alkaline condition of the soil and to these may be added a suitable temperature to permit of the growth and activity of the microbes. We often hear farmers say that the soil of certain land is "dead," and will not produce crops. In so saying they unintentionally accurately describe the condition of the land. It is devoid of microbic life and hence unproductive. Inoculate such soil with the germs of this life by applying manure and decaying vegetable matter and make it alkaline, by the addition of some lime and supply it with moisture, not merely on the surface, but throughout the depth of the soil, and this life will grow and fructify and the soil become productive. It will become a "live" soil and responsive to the demands made upon it. With the proper amount of moisture in the soil and an absence of sourness or in other words an alkaline condition, very little manure or vegetable matter present will serve to revivify the land and hence it is that we so often see good crops produced on land to which only a small quantity of manure has been supplied, a quantity containing much less plant food than the analysis of the crop would seem to call for, for its successful production. The needed addition is got from the stores of natural plant food found in all soils, made available through the active work of the microbes. The earlier land is plowed and got into condition for the promotion of the growth of this mi-

crobic life, the more plant food will become available for the crops and the better the chance for a profitable yield. Keep the teams, therefore, at work, at all times when the soil is sufficiently dry for good work to be done. Land plowed too wet is not conducive to microbic life in the soil as in such a condition the microbes cannot work and the soil bakes into hard clots with the first hot dry weather that comes. When once this has happened no subsequent cultivation can cure the defects, though it may modify the conditions favorably for crop production, but almost always at a cost disproportionate to the results attained, hence, it is of prime importance not to plow land when too wet. It should be in such a condition that the soil will leave the plow in a crumbly condition and not pack together. Watch the condition of the soil carefully and plow only when good work can be done, but never miss an opportunity of plowing when it can be done with advantage.

It is too early to sow or plant any crops, except oats and Canada Peas and oats for a forage crop. Both these crops may be sown in this month, whenever the land can be got into good order. Whilst we have never been advocates for the seeding of oats in the spring in the South, as the fall is the proper time for the seeding of this crop in this section, yet, we recognize the fact that it is necessary at times for this to be done in order, especially, to secure an addition to the hay crop, oat-hay making excellent forage for all stock. For grain, the fall-seeded crop is the only one which can be relied upon to make a profitable return. The hot weather sets in too early for spring sown oats to make a heavy yield except in abnormal seasons when the summer is late. For spring seeding the Burt or 90 day oat is the best. This is a new oat and is proving a most valuable introduction. Rust proof oats also make a good forage crop, seeded in this month and March. Usually it would be found much more profitable to grow some of the summer forage crops, like sorghum, soy beans, cow peas and millet, than oats as these make heavier yields of feed but the seeding of these crops cannot be done until the warm weather has set in and at that time other work generally makes it difficult to get a full area of these crops planted. At this time no such pressure is felt and some portion of the land can be seeded in oats and thus be gotten out of the way until July, when a second crop, say of cow peas or cow peas and sorghum, to be cut for hay, should be seeded and thus from the two crops a good return be secured. Too often when oats are sown, they are put on the

poorest land and that given the worst kind of preparation. This is a foolish system to follow for no crop will make a more generous response than oats to good preparation and fertilization. Plow and break the land finely and then apply 400lbs of acid phosphate per acre and work into the land, and sow 3 or 4 bushels of seed per acre. We prefer 4 bushels of seed per acre rather than 3. Oats do not tiller or spread like wheat and therefore should be sown much thicker. We have sown 5 bushels to the acre with excellent results. The light seeding common in the South can never result in heavy yields except upon very rich land. After the oats have commenced to grow freely a top dressing of 100 lbs of nitrate of soda per acre will help very materially in increasing the yield. We have known it to add one-fourth more. With this fertilization of the land a cow pea or cow pea and sorghum crop can follow the oats, with the prospect of making an excellent hay crop.

Canada peas and oats seeded together this month in middle and eastern Virginia and North Carolina and in March in the western sections of these States, make an excellent grazing crop for hogs and good hay for cutting in May or June. The land should be got in good order, and if not rich, should have 300 or 400 lbs. of acid phosphate per acre applied broadcast. Sow 2 bushels of peas per acre and work them in deeply with the cultivator, or better, drill them in so as to get a cover of 4 or 5 inches and then sow 1 bushel of oats broadcast and harrow in.

Tobacco plant beds should be burnt and made rich and be sown as soon as possible. Do not fail to burn them thoroughly, so as to kill out all weed seeds in the first four inches of the soil and then chop over finely but do not turn over the soil or other weed seeds will be brought to the surface. Apply a rich nitrogenous fertilizer liberally and seed and cover with plant bed muslin, taking care to provide good drainage around the bed so as to prevent washing. See that a good type of tobacco is sown, one adapted to the market and calculated to meet the requirements of the market when cured.

If you have plenty of finely rotted, farm yard manure, use this to top dress wheat and grass land intended to be mown for hay. Be careful when applying it to spread evenly and break finely. A manure spreader is one of the most valuable implements a man can have on a farm. It will make the manure go as far again and do infinitely more good, as

it puts it on the land in a fine condition to benefit the crop. Coarse farm yard manure should be got out on to the land intended to be planted in corn as fast as made. It pays better on this crop than any other fertilizer, as corn with its powerful root growth can better utilize coarse food than the finer-rooted crops. Don't let the manure lay leaching its goodness away in the yard. Let it leach on the land where it will do good.

If the land gets dry enough so that it can be harrowed and made fine on the surface, grass and clover seed may be sown on wheat and other land in good fertility which failed to get sown in the fall which is the proper time to sow these seeds in the South. Before sowing in wheat, run a spike-tooth harrow over the crop to break the crust and freshen up the land. This harrowing will be found also to be of great service to the wheat itself, as it will start it into growth and kill out any weeds just sprouting. After sowing the seed which should be applied with a liberal hand, say not less than 2 bushels of grass seed and 10 or 12 lbs. of clover seed per acre, roll the land with a light roller if dry enough to roll without packing on the roller, if not run over again with the harrow and roll later when dry enough. The best roller to use for this purpose is a Cambridge roller that is one with a ridged and furrowed surface. This packs the lands around the plants whilst leaving the intervening spaces ridged, so that it does not crust so quickly. Do not attempt to seed down to grass any land not already rich or which is not made rich by the application of bone meal or other good fertilizer. It never pays to seed grass seeds on poor weedy land. The weeds will soon crowd out the grass even if a stand is obtained. At least 500 or 600 lbs. of bone meal should be applied per acre to land intended to be seeded to grass and then later when the grass has started to grow, a top dressing of 100 lbs. to the acre of nitrate of soda should be applied or 300 or 400 lbs. of Peruvian guano per acre should be applied. Seed heavily, not less than 2 bushels of mixed grass seed and better 3 bushels and 10 lbs. of red clover. A good mixture for a meadow is Tall Meadow Oat grass Herds grass and Orchard grass and for a pasture add to these Fescue grass and Virginia blue grass. Cover the seed well by harrowing with a light harrow and rolling.

Have a good plan laid down for the cropping of the different fields so that a good system of rotation of crops can be established for the farm. No man

can expect to succeed on a farm who fails to adopt such a system of rotation of crops as will prevent the coming of the same crops two years together on the same land. Cultivated crops should succeed non-cultivated ones and root crops precede grain crops wherever roots are grown and grass follow the grain. Let corn always as far as possible follow the grass as it can best utilize the rough and coarse fertility in the land. Whether the rotation shall be a long one or a short one depends much on the character of the land. A short rotation is best for light land, a long one for heavy land.

IMPROVING POOR LAND.

Editor Southern Planter:

I have been a reader of your valuable paper for about two months and while I am not what might be termed a scientific farmer, yet am deeply interested in the cultivation of the land of the South.

In your paper I found a number of articles dealing with this subject that appealed to me strongly. Your editorials are to be commended for their good common sense, and let me say right here, that common sense is what the farm needs. To my way of thinking, the colossal question confronting the Southern farmer to-day is: How to utilize the barren land? How to reclaim the almost worn out fields, which have been idle for years? And how to make these waste places pay their own way during the reclaiming process.

I made a little experiment along this line, particularly of which I gladly give, which may be of interest and benefit to others dealing with the same propositions and conditions.

In 1902, I purchased a small farm near town. My friends laughingly asked what my object was in buying land of such a character, my answer was, "wait and see." The soil was a very poor clay. The three years previous it had been planted in corn, yielding about 12 bushels to the acre. The stalks were very small, hard and almost round. The following is the manner in which a 20 acre field was treated:

The field was plowed just as deeply as possible with a No. 30 Oliver Plow. Went twice over it with a disc harrow, sowed 1 bushel of cow peas to the acre. When about half the pods were ripe, the peas were cut for hay. The land was then turned again (this time in the fall) just as deeply as possible and the disc harrow used freely, and wheat sown. At the present, time, however, rye is being used instead of

wheat. The wheat was converted into pasture for calves, thus saving one-half feed.

After cutting the wheat, the plowing and harrowing process was again resorted to and peas sown. The peas were cut for hay, thus getting two crops the same year. After cutting the peas, the ground was again plowed, using a subsoiler, and allowed to remain during the winter. The cattle were sheltered during the winter and the wheat straw used for bedding. In the day time, when the cattle were turned into a lot, the manure was gathered up and placed into a pile, with first a layer of manure, then a layer of dirt, and so on, to be used as fertilizer in the spring.

Last spring the field received a top dressing of four two-horse loads of manure to the acre, and was plowed with a single plow and the disc harrow used. Corn was planted every fifteen inches in rows three and a half feet apart, cultivated it three times and gathered 54½ bushels of corn to the acre.

The field is now sown in rye and I expect to run the harrow over it in the spring and sow grass and clover. The whole farm has been treated in a similar manner, with rich returns.

It is my experience that one animal to each acre cultivated will supply sufficient manure, if rightly handled, to give a good top dressing. The hogs in the pen should be bedded and the bedding removed just the same as for the milk cow and the work horse. The manure obtained from the hog pen is far superior to that of the cow or horse. While rye straw is preferable for bedding, yet I use oak leaves for my stock when straw is not available, and am well paid for the trouble. Manure that is thrown into a pile, where the rain beats upon it from January to May, loses much of its enriching power. Too many farmers depend upon commercial fertilizer to enrich their lands. We often see straw stacks rotting on the farm, when worn out spots and sheer neglect are in woeful evidence. If that same straw was placed in the cow stall or pig pen as bedding, it would prove in the end of far more value than commercial fertilizer.

Let us as farmers wake up and learn to utilize the rich gifts within our grasp. Let us take up the question of poor lands and handle it in a masterful manner and where now we see wide barren acres with here and there a patch of corn or cotton, our fields will be rich in green peas and clover, furnishing more than their equivalent in hay and land fertilizer.

Instead of disposing of our hay at half price, let us create a home market, by cultivating thoroughbred

stock. It costs no more to feed a thoroughbred than it does to feed a scrub.

The time for thinking and acting for ourselves has come and let us be up and doing. Read the Southern Planter and put into use its practical suggestions.

Hoping this article may be of some benefit to your many readers and assuring you that I look forward with interest to each coming issue, I am,

Yours for success,

Roane Co., Tenn.

JOHN H. HATFIELD.

SELECTING SEED CORN.

Editor Southern Planter:

Last year I rented 20 acres of land on Roanoke river. The average yield of corn on these lands is about 40 bushels to the acre. I made 65½ bushels. This increased yield I attribute entirely to the seed I planted. This seed I have been raising for 12 to 15 years. I take great care in selecting my seed corn in the field and always tell my men never to save a stalk for seed unless it carries at least four good ears. The result of this system of selection long continued is, that my stalks all produce from two to eight ears. With such prolificacy I can easily raise double the average yield per acre over corn planted from seed taken at random from the crib. The importance of selection of seed from prolific stalks is not half appreciated as it ought to be.

Mecklenberg Co., Va.

M. A. BASKERVILLE.

WEEVIL IN CORN.

Editor Southern Planter:

The article on the Angoumois Moth is a timely suggestion. When I lived in North Louisiana (Monroe Ouachita Parish), I was told by a successful planter that after pulling his corn and piling the ears in the depression between the rows—in case of a rainfall before he could get ready to haul it to the crib—he would load it from the pools of water covering it and throw it wet into the crib. As the crib was fairly ventilated near the “comb” the corn, (still in the shuck), would go through a great heat without molding in the least, and that after this no weevil or bug would touch it.

Washington, D. C.

ATTENTIVE READER.

“THAT OLD WORN-OUT FIELD.”

Editor Southern Planter:

One hears this expression often, but is it true, are

the fields really worn out? In reply I say no! I think their unproductiveness is due principally to the neglect of the owners. If one meets the owner of one of these fields and asks, why it is not in cultivation, the usual reply is, it isn't any account. This is all a mistake, which I shall try to prove by giving my experience with a piece of this so-called worn-out land.

A few years ago I purchased a small farm in Hanover Co., Va. Upon it there were about thirty acres of open ground that had been cropped year after year until it was considered worthless, and finally allowed to grow up in sassafras bushes and pines.

A neighbor who has been living here all his life and who has acres of land just as mine were, made the remark, that I never would do anything with that worthless old farm, but I think he has now changed his mind.

I went to work and grubbed out the bushes then broke it as soon in the spring as possible with a heavy two-horse plow, as deep as I could, then let it lay until about the middle of May, when I took a heavy disk harrow and went over it both ways which thoroughly cut up the sod, after which I levelled it with a spike tooth harrow, and was ready for planting my crop.

Half the field I planted in corn, worked it thoroughly, and had a much better crop than I expected.

The rest of the field I sowed in cow peas, in June, I picked the dry ones in the fall, and the vines I turned under, and then planted the land in corn the following spring, and harvested a very fair crop, since then I have always preceded my corn with peas and clover, and in four years I have more than doubled the yield.

I now cut the peas and clover for hay, and just turn under the sod.

I have not used over two tons of fertilizer in the four years. If one is able to use lime and fertilizer, they can obtain quicker results. I think I owe the increase in crops principally, to deep and thorough preparation, and cultivation and the fertilizing qualities of the peas and clover.

I wish some of your readers who have “old fields,” would take hold and improve them, it can be done so easily. 'Tis sad to see fields lying idle and growing up in weeds and bushes, that could be made to grow such a variety of profitable crops, especially forage crops. There is always a cry in this part of the State for feed, we can easily have more feed, if we go at it and work up what so many consider waste land, all we want to do is to get to work in a business-like way, be more thorough in preparing our

fields, let us get out of the old rut, try new methods, get more labor saving machinery and help and feed our soil, not work it only for what we are to get out of it this season, but think of the seasons that are to follow; and last, but not least, watch the Southern Planter, we farmers especially here in Virginia can not afford to be without it, it is a great friend to us, and never fools us, it is good sound sense from cover to cover.

H. J. ROSBACH.

Hanover Co., Va.

LIMING LAND.

Editor Southern Planter:

The subject of applying lime to land so often advocated by your valuable paper is receiving more attention now than ever before, at least, in Loudoun and the adjoining counties. But the proper amount to apply per acre as given by different writers varies so much that the average farmer is at a loss to know who is right.

The regulation quantity prescribed by writers in most agricultural papers is about 50 bushels per acre, applied in the old wasteful way of placing a given amount a certain number of feet apart and then spreading by shovel after slaking. Often a large amount of it resembles shelled corn or hulled walnuts.

Now it is an established fact that it is not so much the amount of matter that is fed to land or animals, but the condition best suited to proper assimilation, that secures the best results. As the tendency of lime is always to go down into the land, much of an application of the character described will have passed the reach of crop roots before it has accomplished the purpose applied for. As most of our lands are deficient in vegetable matter, large applications of lime would be often injurious rather than beneficial. The price of lime and the scarcity of labor makes heavy applications impracticable to the average farmer. Lime is not in itself a manure or fertilizer, but rather an agent of destruction and a creator of changes in the nature of the matter already in the soil, thus rendering these fit for plant food. Where the land is well stored with vegetable matter or plant food, large applications of lime produce splendid results. Where land has been plowed very deep and a large amount of inert matter brought to the surface, the application of a smaller amount will often suffice to correct the mechanical and physical condition and unlock latent ingredients and render them fit for plant food. Sour land—and that is what

I believe is the matter with a great deal of our land—is not necessarily deficient in vegetable matter but the physical, and often the mechanical condition is such that the plant food is not available for plant life. The application of lime to such land renders it alkaline promoting development of bacteria which in turn make assimilable the plant food to plant life. In this connection I will bring in evidence an article in your October number by Mr. Sherman of Fairfax, in which is described a most practical test made by him on land which he had every reason to believe had plenty of vegetable matter in it it being new land. Though he had applied phosphate and on part of it stable manure, his crop of corn was yellow and sickly; and though well cultivated, made a miserable poor yield and cow peas and crimson clover sown in the corn at the last working, were almost a failure. Next year he applied the small amount of 600 lbs. of lime per acre (mark the small amount), with the result that his corn was green and vigorous from start to finish. The season and cultivation was about the same each year. His yield was over 50 bushels per acre and a splendid stand of crimson clover was secured. I hope Mr. Sherman will give us an account of his experience with that land this last year. Now this practical test appeals more strongly to the average farmer than any theories advanced by writers. The application of 600 lbs. of lime per acre in a dry floury condition, evenly applied, with a lime spreader or wheat drill, comes luckily within the power of the average farmer and at a cost less than his present fertilizer bill and would enable him to get over his whole farm in one rotation. I will admit such an amount would probably have to be repeated frequently but with the generous use of leguminous crops this would mean paying crops and the permanent improvement of his lands. Let us hope that others will give their experience of such tests to show what would be the proper amount of lime per acre.

Loudoun Co., Va.

LOUDOUN

IRISH POTATO EXPERIMENTS IN NEW YORK STATE.

Another most interesting line of station work is potato spraying with Bordeaux mixture to prevent blight and rot; and the results secured in this fourth year of the ten-years' test emphasize the necessity for such treatment in almost every potato-growing area in the State, and show the possibility of farmers doing such work successfully and profitably.

In the station or "ten-year" test, both at Geneva

and at Riverhead, L. I., successive rows are left unsprayed, sprayed three times during the season, and sprayed every two weeks, the series being repeated, so that one-tenth of an acre is devoted to each method of treatment. In 1905, at Geneva, the unsprayed rows yielded 122 bushels to the acre, three sprayings increased the yield 107 bushels, and five sprayings 119 bushels. At Riverhead, the yield, unsprayed, was 221 bushels, and the gains from three and five sprayings were $31\frac{1}{2}$ and 81 bushels, respectively. The average gain for four years from spraying every two weeks has been $69\frac{1}{2}$ bushels at Riverhead, and $148\frac{1}{2}$ bushels at Geneva.

To show the financial side of the question, the station also supervises "business experiments" carried on by farmers with their own labor, apparatus, methods and mixtures—merely requiring the omission of spraying on representative check rows, and supervising the weighing of the yield of these rows and of similar sprayed rows on either side, in order to secure a measure of the effect of the spraying. Exact account is kept of the cost of labor and materials, and an estimate included for wear of sprayer, so that the profit or loss can be determined, as governed by the selling price of potatoes at digging time. Thirteen such tests were reported in 1905, covering 150 acres, with an average gain of $46\frac{1}{2}$ bushels per acre and an average net profit of \$19.86. Owing to lower yields in 1905, the profit is not so great as in 1903 and 1904, when the gains were \$23.47 and \$24.86, respectively.

These are thoroughly reliable tests, and should be convincing; but some men are so slow to accept as possible for the average farmer results with which a Station has anything to do, even remotely, that the Station also collects data of volunteer experiments in which the entire operation, from planting the potato to selling the crop, is managed by the grower himself. In 33 such experiments in which the yields of sprayed and unsprayed rows were actually weighed or measured, not estimated, there was an average gain of $60\frac{3}{4}$ bushels per acre, with an average selling price of 55 5-6 cents a bushel. If the cost of spraying be placed at \$4.25 an acre, which was the average in the business experiments, these potato growers made an average net profit of \$25.50 an acre. One of these growers reports a gain of 209 bushels to the acre on 10 acres from only three sprayings. In this case the potatoes from unsprayed areas were almost wholly lost through rot.

Another grower who believes in many and light sprayings made 20 applications, costing him \$8 an

acre, but he gained $136\frac{3}{4}$ bushels; so his work with the sprayer on $17\frac{1}{2}$ acres netted him more than \$700. Others of course did not succeed so well, as the man with a quarter acre who sprayed once by hand and got an increase of only $2\frac{1}{2}$ bushels has rather limited opportunity for gain. Even he did not lose, nor did any one else of the 33 reporting.

In the present day of agitation for plant breeding, some tests of the influence of selection of seed in potato growing are interesting. In weighing the yields in spraying experiments, it was noticed that adjacent hills varied greatly in weight, and it was suggested that tubers from these heavy hills would be better for seed than those from light hills. In 1903 tubers were taken from 125 hills selected as heaviest in five rows, and also from 125 hills giving the lightest yields in these rows. These were used for seed in 1904, ten rows being planted from heavy hills, five from light, with a gain in crops of 23 bushels to the acre from the seed from heavy hills. Seed selected in the same way from this crop and planted in 1905 showed a gain of $61\frac{1}{2}$ bushels from the heavy hills. This was with Sir Walter Raleigh; and seed of Carman No. 3 selected in 1904 and planted in 1905 showed an advantage for the heavy hills.—Country Gentleman.

CORN AND COB MEAL.

Editor Southern Planter:

A correspondent of The Country Gentleman, not long since, said: "The Experiment Stations have shown beyond discussion that cob meal, when fed to cattle, is fully as valuable, measure for measure, as clear meal." The writer is not aware that the Stations have shown the matter quite so strongly as that; and it should be remembered that experiments made in one place under certain conditions, may not give the same results when made in another place under different conditions, and that "one swallow does not make a summer."

Sir Lyon Playfair is quoted as saying (and the saying is endorsed by John Gould) that it is the potash in the cobs which supplies their principal feeding value. In that case, why not burn the cob, put some of the ashes into the feed, thereby securing both the fuel and the feeding value.

It is claimed that grinding the cob with kernels, doubles the bulk of the ration, fills the stomach of the animal fuller, and thereby enables the digestive organs to act more advantageously on the food. If that be all, it would be far better to increase the bulk of the ration by mixing cut straw, or chaff, with the clear meal.

John M. Stahl, who is a practical farmer, as well as an able writer, says, "I have fed cob meal—made three trials of it,—and have not been able to get much feeding value out of it."

Waldo F. Brown is an advocate for cob meal, but admits that at one Institute in Ohio he "he found but few advocates for it, in a large audience, and found many who considered it unfit to feed."

In 1853, my father, who owned a grist mill, at the suggestion of his miller, and the solicitations of his customers, built an addition to his mill, put in an extra water-wheel, and procured the necessary machinery for grinding corn and cobs together. The expense was five or six hundred dollars, and for a time seemed to be a profitable investment. He ground the corn for his regular customers, and attracted custom from other mills to such an extent that they too had to put in machinery for grinding corn on the ear. The additional toll for grinding corn and cobs together was not much, the mill was kept in good order, and the meal was ground as fine as possible, which, owing to the moisture in the cobs, was not always very fine, and the miller was honest; but gradually the corn cob custom fell off, and in less than three years had ceased entirely, and the spiders spun their webs unmolested over the cob mill. It was the same case with every mill in the country that put in the "improvement," and I do not know of any mills that now have the machinery for grinding corn in the ear; but they all have shellers for shelling their customers' corn free of charge.

What was the cause of such a surprising downfall in the popularity of the cob meal, and cob mills? First, because the farmers, having given the meal a fair trial, not merely once, but a hundred times, became fully convinced that the actual value of cobs was so little that it did not pay to have them ground, and that corn in the ear could not be ground so fine as the shelled grain. Few farmers keep any old corn over for fall and winter feeding, and have to begin on the new crop as soon as husked, and consequently it has to be ground when the cob is full of moisture, and it is utterly impossible to grind it fine. If an attempt is made to grind fine, the mill-stones will get hot, and begin to rumble and grumble, glaze over with dough, go slower and slower, and unless raised, will choke up and stop with a fullhead of water on the wheel. I have seen it myself. Then the stones must be taken up and the glazing be picked off.

No class of men were ever more happy than millers when the cob craze was over. There was no profit in grinding cobs and millers were blamed for not grinding them finer, when they did the best they could.

Let a person take a knife and try whittling a cob, he will find that on each side of the cavities where

the kernels stood, extending to the pith, it is full of small, thin, circular plates, hard as a hemlock knot. Let him examine the dung of the animals fed on cob meal, and he will see these hard, sharp plates have not been digested, and could not be digested by the stomach of an ostrich, or an anaconda. Then he will have doubts as to whether such stubborn substances could pass through the long tortuous route of the intestines without producing irritation if not laceration.

My experience in feeding cob meal is probably as great as any of the Directors of Experiment Stations, and it is unfavorable to the feed.

Hundreds of intelligent and observing farmers in this country, who years ago made many fair trials of cob meal, have abandoned its use. The experience of the many, is more likely to be right than the experience of the few.

J. W. INGHAM.

Prof. Henry in his work on "Feeds and Feeding" (and he is one of the best authorities in this subject) says, "Reasonably fine corn and cob meal has been found very satisfactory for stock feeding. Experiments by the Paris Omnibus Company showed that corn and cob meal gave better returns than pure corn meal fed to horses." In an experiment made at the Kansas Agricultural College in 1884, with ten steers divided into two lots of five each, and in which one lot was fed corn and cob meal and the other lot corn meal, the roughage of both cases consisting of oat straw, orchard grass, and clover hay, the corn and cob meal gave the best daily gain. The result of two experiments made showed that on the average a pound of corn and cob meal was equal to a pound of pure corn meal in steer feeding. In an experiment at the Ohio Station, in feeding dairy cows during the corn and cob meal feeding period, the yield of milk was one-half pound more daily for each cow over the period when cob meal was fed. In experiments made at the New Hampshire Station, Missouri Station and Kansas Station, in feeding hogs, corn and cob meal proved superior to the same weight of corn meal in the New Hampshire and Kansas trials, while in Missouri the corn meal was more valuable. Prof. Henry adds, "Practical experience is strongly in favor of using the cob with the grain when feeding meal to farm animals. It has been suggested that pure corn meal lies heavy in the animal's stomach, and while in this condition is not so readily attacked by the juices of digestion. On the other hand, the particles of cob, when associated with the meal cause the mass to be loose in the stomach in condition for easy digestive action.

—Ed.

Trucking, Garden and Orchard.

WORK FOR THE MONTH.

Whilst it is too early yet to plant any garden or truck crops, except in Tidewater, Va., and Eastern North and South Carolina, where Irish potatoes and English peas may be planted in the latter half of the month if the weather be mild and the ground in good working condition, and also small patches of early salad crops, like radishes and lettuce, which may succeed if the weather keeps mild, it is not too early to be making the land ready for all the truck and garden vegetables. As soon as the land is dry enough to plow without sticking to the mould-board, get into it and plow deeply and thoroughly. If plowed in the fall, this second plowing should be across the former plowing, so as to thoroughly mix and break the soil. Throw it up well so as to freely admit the air and sun, and thus result in a warming and drying of the soil. After plowing, apply the compost heaps, which we advised to be made up in the late fall and winter months, broadcast and with a very liberal hand. Forty or fifty loads may, with advantage, be put onto an acre of land, and if acid phosphate and potash was not mixed in the compost when made, 500 or 600 pounds of acid phosphate and 200 pounds of muriate of potash may be spread, broadcast, per acre, in addition to the compost. The compost and fertilizer should then be worked into the land with a Disc or other cultivator, crossing the working each time the land is gone over, so as to thoroughly and completely incorporate the manure and fertilizer with the soil. It is no use attempting to grow vegetables or truck crops of any kind on land that is not rich and in the finest state of cultivation. To be profitable and palatable, vegetables of all kinds should be grown quickly, and this cannot be done unless the soil is rich and in fine physical and mechanical condition. If no compost heaps are available, then some of the best rotted manure from the barn and stables should be applied to the land, even though the quantity be only small compared with what we have above advised, and all the vegetable matter, in the shape of rotted leaves, weeds and trash, which can be secured, should be also applied. The manure will introduce microbic life into the soil, upon which largely depends the productive capacity of the land. If lime has not been applied earlier in the winter, or for several years, it should be well to give a dressing of 20 to 25 bushels to the acre as soon as the land is plowed, and

be worked in lightly and be left a couple of weeks before applying the manure or compost. Much garden and truck land is more or less acid, and in this condition will not give the best results. It must be alkaline before microbic life will work actively in the soil and such a condition is also conducive to the best growth of most vegetables.

As few, if any, of the commercial fertilizers on the market are rich enough in potash and nitrogen, to meet the requirements of truck and vegetable crops, it is always best to mix the fertilizers used on these crops at home, and we therefore give the following formulas for the principal crops: Get the materials at once from the parties advertising the same in *The Planter* and then mix and have ready for application as soon as land is dry enough to work. Take care to see that the mixing is thoroughly done, so as to make an even product all through the heap. This is best done by putting down on the barn or a dry shed floor first a layer of one ingredient and then a layer of another, until the whole of the materials are used. Then take a shovel and turn over the heap first to one side and then to the other until thoroughly mixed, carefully breaking all lumps with the back of the shovel. If time will permit, it is also an excellent plan to run the whole heap through a ridger and ensure perfect mixing and fine condition thereby.

For Irish Potatoes.—Nitrate of soda, 300 pounds; cotton seed meal, 600 pounds; acid phosphate, 800 pounds; muriate of potash, 300 pounds, to make a ton. Apply at the rate of from 500 to 1,000 pounds to the acre in addition to compost.

For Beans and Lettuce.—300 pounds nitrate of soda, 800 pounds cotton seed meal, 600 pounds acid phosphate, 300 pounds muriate of potash. Apply at the rate of 500 pounds to the acre in addition to compost.

For Cabbage, Cucumbers, Melons and Cantaloupes.—300 pounds nitrate of soda, 700 pounds cotton seed meal, 750 pounds acid phosphate, 250 pounds muriate of potash. Apply at the rate of 500 pounds to the acre with compost.

For Asparagus.—200 pounds nitrate of soda, 700 pounds cotton seed meal, 800 pounds acid phosphate, 300 pounds muriate of potash. Apply 800 pounds to the acre.

For Tomatoes and Egg Plant.—200 pounds nitrate of soda, 750 pounds cotton seed meal, 750 pounds

acid phosphate, 300 pounds muriate of potash. Apply at the rate of 600 pounds to the acre.

For Sweet Potatoes.—100 pounds nitrate of soda, 500 pounds cotton seed meal, 1100 pounds acid phosphate, 300 pounds muriate of potash. Apply 500 pounds to the acre.

For Peas and Beans.—100 pounds nitrate of soda, 450 pounds cotton seed meal, 1200 pounds acid phosphate, 250 pounds muriate of potash. Apply 400 pounds to the acre.

Asparagus beds should be worked over as soon as the ground is dry enough and be covered with a thick layer of good, rotted barn-yard manure and fertilizer mixed in accordance with the formula given above, and then be covered thickly with good soil to the depth of 8 or 10 inches.

The setting out of strawberry plants should receive attention as soon as the land can be gotten into a good condition. They should get well rooted in the ground before the hot weather sets in if they are to make satisfactory growth. Apply potash and phosphate liberally, if the land is not rich. Potash always pays on strawberry crops, giving firmness and color to the berries. 400 or 500 pounds to the acre of muriate or sulphate of potash is little enough to use.

Strawberry beds coming into bearing this spring should be worked over as soon as the land is in condition to work and should have a top dressing of 100 pounds nitrate of soda, 400 pounds acid phosphate and 400 pounds muriate of potash to the acre. This should be spread down each side of the rows and be worked in with the cultivator. Mulch the land with pine tags or cut straw or marsh hay free from weed seeds, to conserve the moisture and keep the berries clean.

The planting of the Irish potato crop may be commenced in the last half of the month, if the weather be suitable and the land in good order, in Tidewater Virginia and Eastern North and South Carolina. Only the earliest varieties should be planted and these should be well covered to prevent injury from late hard frosts. Fertilize liberally with the mixture advised above. As much as 1000 pounds per acre is frequently applied by successful growers. This insures rapid growth and readiness of the crop for the earliest sales, when prices are always good. Potato planters are now largely used for the setting of the

crop, and will be found advertised in our columns. Where a considerable acreage is planted, they will be found economical. One machine in a locality would easily plant the crops of several growers. If not using a machine lay off the rows 2 ft. 6 in. apart and drop the sets 15 inches apart in the rows. Cut the sets to two or three eyes in a piece, and cut as wanted to plant. It is mistaken economy to cut the earliest varieties into too small pieces. They are not such vigorous or strong growers as the later varieties and have harder conditions to contend with, and, therefore, should have more substance left to support the sprouts until they are well rooted. Consult local seedsmen's catalogues for varieties adapted to the section you live in.

English peas may be planted with safety in the last half of the month as they are hardy and will stand a fairly hard frost. Land which grew potatoes or cow-peas last is well adapted to English peas and will not require heavy fertilization. If too heavily fertilized, they run too much to vine. Make the rows deep and cover the seed 4 or 5 inches, first treading the seed into the ground, so as to compact the soil around it. Set out in rows 2 ft. 6 in. apart, so as to permit of cultivation with horse machine.

If the mildness of the season continues and the land is dry enough to work properly, fall-planted cabbages should have the first cultivation this month, and plants may be set out from the seed beds.

Small patches of lettuce, radishes and cresses may be seeded in sheltered spots to take chances for early cutting.

DON'T RUSH INTO TRUCK FARMING OR MARKET GARDENING BEFORE YOU ARE READY.

Editor Southern Planter:

"Be sure you're right, then go ahead."

Davy Crockett.

The first and most important item in the raising of truck of various kinds for market, is to be sure you have a ready market for your produce when raised.

Second, don't start into truck farming unless your farm is convenient to some good shipping point. We have seen quite a number of failures resulting from undertaking to raise vegetables too far from either market or shipping point.

To make a success of vegetable or fruit raising, the vegetables, or fruit, *must* reach market in attractive form, and good condition; and the expense for hauling to either shipping point or market must not be so great as to eat up the profits.

Third, adaptability of soil to the several crops proposed to be raised, or adaptability of crops to soils, *must* receive due consideration. It is simply inviting failure to undertake to successfully raise crops requiring heavy soil on light land, or light land crops on heavy soils. So, also, it would be the height of folly to attempt to raise crops demanding excess of moisture on drouthy soils, or those requiring a minimum amount of moisture on low bottom lands, or partially drained swamps. Yet, we sometimes see these things done; hence our caution on this point. Our advice would be,—don't, don't try it. If your soil is not suitable to the crop desired to be raised, don't plant that crop. If plant it you must, then migrate, and keep moving until a soil is found that is suitable.

Now, inattention to this point is bound to result in loss of time, money and patience. Life, at best, is but short; there is not enough time in the average person's lifetime to justify the frittering of it away in idle and useless experiment.

Fourth, last, but by no means least, we would call attention to the fact that it is a natural impossibility to grow profitable crops of vegetables on poor, thin soils. No greater mistake can be made than to suppose that, because a soil may be good for any ordinary farm crop, it would be equally good, by the addition of a little manure or fertilizer, for the raising of vegetables for market. It takes about three years to bring ordinary farm land into the high state of cultivation necessary for successful market gardening. The late Peter Henderson, than whom there was no better authority in this country, stated that (on land that was already what would be considered by every farmer as *excessively rich*, and in "good heart") "We use every spring, at least, seventy-five tons of well rotted manure per acre, or alternate it with 1,200 pounds of best Peruvian guano, or 2,000 pounds of crushed bone. The manuring is done only in the spring for the first crop; sufficient remains in the soil to carry through the second crop, etc., etc., successfully."

We quote above as corroborative of another fact, to wit: Manure is the sheet-anchor of the market gardener. In the absence of manure, or where the necessity exceeds the supply, said deficiency may be made good by the liberal application of high-grade "complete" commercial fertilizers, coupled

with the turning under of leguminous crops, not so much for the nitrogen they furnish as for their humus content, not supplied in commercial fertilizers, yet indispensable to both soils and crops. Good truck crops can only be grown by high-manuring, no matter how fertile the land seems. In case the manure supply is deficient, a ton or more of high-grade fertilizer must be used per acre. The most successful market gardeners are those who do not hesitate to apply fertilizers (to land that is already rich) of a high grade in the most lavish manner.

Commercial fertilizers are a complete substitute for manure, where the needed supply of vegetable matter is kept up by other means; but this maintenance of the humus supply is essential, in fact, indispensable, for best (i. e., most profitable) results.

Of manure, 20 to 60 one-ton loads are requisite per acre.

A favorite formula with us, and several market gardeners of our acquaintance, is one that will analyze 5-6-7, or

Ammonia	5%
Available phosphoric acid.....	6%
Potash	7%

This might be termed a "general garden fertilizer," or one about as equally adapted to growing garden vegetables in general as any other single combination that could be formulated. It may be made at home by intimately mixing:

Nitrate of Soda.....	200 lbs.
Cotton Seed Meal.....	700 lbs.
Acid Phosphate.....	840 lbs.
Sulphate of Potash.....	260 lbs.

Muriate of potash may be substituted for the sulphate, if desired, but is not as good, in our estimation; whilst kainit should seldom be used in the vegetable garden, except for its insecticidal properties, or where the more concentrated salts cannot be procured. The actual potash content of kainit, is too low to be economically used as a fertilizer away from the sea coast, or far in the interior, nor does it contain sufficient quantity to justify its use in any "complete" high-grade fertilizer.

Each truck raiser, however, must be his own judge as to the needs of his own soil, its character and fertilizer requirements. No cast iron, inflexible rule that will suit each individual case can be laid down in black and white. No, not even by scientists.

Miss.

G. H. TURNER.

FRUIT PLANTING.

CHERRIES.

Editor Southern Planter:

For a great many years past, on account of the greater ease and cheapness of the process, nearly all the nurserymen have been raising cherries on the Mahaleb stock, a practice which cannot be too strongly condemned, for while the sour varieties may do fairly well on this stock, the sweet varieties, though they will apparently start out well, and make a promising growth for a year or two, will invariably die before they come into bearing. I don't hesitate to say that the nurseryman who propagates and sells such stock, is either ignorant of his business, and hence, incompetent, or else he is a person who does not scruple to defraud his customers. The common belief of late years has gotten to be that it is useless to plant sweet cherry trees, as they rarely live to bear even a few fruits, and this has arisen from the fact that they were on Mahaleb stocks, and hence died. Since I have been engaged in raising fruit, I have planted some four or five hundred sweet cherry trees, but have never seen as many as a dozen cherries on them, and I am sure that these unfavorable results were not caused by local conditions, as I have had the same disastrous experience with the Mahaleb stock, with different soils, and under varying conditions.

It is very hard to get cherry trees worked on Mazzard stocks. After years of failure, I myself have only accomplished it by getting young seedlings from about the place. By the way, if you can't find these, you can easily and quickly raise them by sowing the seed of sweet cherries. I plant these seedlings where they are to stay and after they have grown one year, I graft them with the varieties I desire. The way I get the grafts is this: I buy the trees from a nursery, plant them midway between the seedlings, and take the cuttings from these trees, and graft them on the seedlings set for the purpose. In this way, I have some handsome, healthy young trees on the native Mazzard stock, although all the trees from which these grafts were taken, are dead, in spite of being planted at the same time and in the same way.

PEARS.

In my opinion, there have been few improvements, of late years in the varieties of apples, pears and possibly peaches. In their eagerness to sell novelties at a high price, the nurserymen have done incalculably more harm by superseding our old standard va-

rieties with inferior fruit than they have done good by introducing new varieties of merit. This is especially the case in regard to pears, of which a number of either pure Oriental, or varieties mixed with that strain have been foisted upon the people with the claim that they are blight-proof. There is no blight-proof pear. Some of the Oriental ones blight worse than the European varieties. It is very fortunate that the most delicious of our Occidental pears are the least susceptible to blight, as for instance the following which I name in their succession of bearing.

Manning's Elizabeth.

Tyson.

Little Margaret.

Urbaniste.

Sickle.

Beurre Clairgeau.

Winter Nelis.

Beurre d'Anjou.

Lawrence.

Easter Beurre.

Duchess d'Angouleme.

All the above should be on standard stocks, except the last, which may be either on standard or dwarf stocks.

APPLES.

In apples there are no new varieties of such superlative excellence to supersede a single one of the standard old varieties. It is useless to enumerate the latter, as they are already so well known and every neighborhood is well aware of the varieties that suit it best, and should confine its planting to these.

PEACHES.

There has been a greater improvement in shipping and market variety of peaches than in the other fruits, and this improvement has been especially marked in the ability of the new varieties to resist cold and frost, and to bear regular and abundant crops, although it has generally been at the expense of quality. A large proportion of the new varieties are descendants, either wholly, or in part, from the Chinese cling stone type and most of them inherit a tendency to cling, more or less to the stone, though some of them are marked "free stone" in the catalogues. Few of them are "free" in the sense of the old fashioned "soft" peaches, nor have they the same crystalized sweetness. For family use, or for an appreciative, near by market, no varieties can equal those in the subjoined list, in which they are given in the order of their bearing:

Troth's Early.
 Large Early York.
 Royal George.
 Mountain Rose.
 Old Nixon.
 Lemon Cling stone.
 Stump the World.
 Heath free stone.
 Heath cling stone.
 Morris' White.
 Ward's Late free stone.

Where conditions suit it, Bilyien's "Comet" might be added to the above list.

PLUMS.

Most of the new Japanese varieties of plums are scarcely worth planting, except for making jelly, as they are entirely lacking not only in sweetness, but in flavor, even when they stay long enough on the trees to ripen, which they seldom do. The Red June is one of the best bearers amongst the Japanese plums, though it is not of high quality. There are two new varieties, "The Climax" and "The Sultan" said to be more promising than the others.

The following are amongst the best of the old European varieties:

The Lombard.
 Green Gage.
 Washington.
 Reine Claude de Bayev.

Peach stock is as unsuitable for plums as Mahaleb for cherries, although on account of its cheapness, it was formerly used a great deal. European varieties of plums are much troubled with curculio, but this is no harder a problem to contend with than the extremely early blooming and the rot of the Japanese varieties.

Let me advise the fruit grower for home use not to plant too many trees. Most people do, and consequently make a miserable failure from their inability to attend properly to them when grown on too large a scale. For the average farm or family I should say that in all between 50 and 100 well cared for trees would be ample. Select carefully the soil for the different kinds of fruit. Put your peaches on the deepest sand, your pears and plums on the heaviest clay, and your apples on the best loam, with a subsoil permeable to their roots and to moisture. You can't expect fine apples, even if the top soil is rich if that under it is hard pan or rock. Of course, it rarely happens that a farm house will be surrounded by just such soils as would best suit different fruits,

but in Virginia, at least, the soil varies so much, even in a limited area that you have more or less opportunity of selection. Don't plant your trees too close together. The roots want plenty of room, and the tops want all the air and sunshine they can get, and you, too, want plenty of room to work them, and get between them and spray them and gather the fruit. For apples and sweet cherries on Mazzard stock, you should allow an interval of 40 feet each way; for peaches and standard pears, 25 feet each way; for plums, damsons and sour cherries on Mahaleb stock, 20 feet each way. Don't plant between your trees what are commonly called "fillers," unless the land is very scarce or high priced. They are a nuisance from first to last, making the cultivation and management of the orchard much more difficult, besides impoverishing the soil and increasing the chances of disease, without bestowing commensurate benefit.

Do not think you are going to make much money by selling fruit, if you are at a distance from a town, and are not a professional fruit grower, but just be content to have an abundance for your family and friends. To make a commercial success of it, you have to be a professional orchardist, with the requisite energy and skill for carrying on the enterprise and the soil and location of your orchards must be just right.

Don't quarrel with the fruit tree agent or peddler. He is rarely the shark he is represented to be; but is generally some callow youth, or broken down old man who is trying to make a little money to better his condition. It isn't his fault, that you have to pay him, at least, double as much as you should. The nursery is responsible for that, and your lack of informing yourself. The only trouble about him is that he is as a rule, as ignorant of the quality and character of the fruit he tries to sell you, as of the quality and character of the nursery he represents. In buying fruit trees more than anything else, the farmer is at the mercy of the party from whom he purchases, so it behooves him to get as near as possible to the responsible party, and to dispense with intermediaries. Buy your trees from the most reliable nursery you know of, and buy of the best quality they have, preferably young, thrifty trees. On no account, buy a tree over two years old, and those of one year old are still better.

Campbell Co., Va.

J. CABELL EARLY.

(Mr. Early is noted in his section as a most successful fruit grower, and, therefore, his advice is deserving of attention.—Ed.)

Live Stock and Dairy.

"HOLSTEIN-FRIESIAN CATTLE."

Editor Southern Planter:

These cattle are rapidly occupying the richer and more important dairy sections of this country, hence there is a great demand for information in regard to them and some of this may be of interest to readers of the "Southern Planter." These cattle were introduced from the provinces of North Holland and Friesland, a section of the Kingdom of Netherlands, bordering on the North Sea, commonly called Holland. The dairymen of these provinces are descendants of the ancient Friesians and their cattle are lineal descendants of the cattle bred by them two thousand years ago. From the earliest times of dairy husbandry these cattle have been used and developed for dairy purposes. The type of the breed is technically called the milk and beef form. It is especially strong in all vital particulars. The bones are fine compared with size, and the chine broad and strong compared with the high and sharp chine of the extreme milk form. Compared with the angularity usually shown in the milk form these cattle are broad and smooth, but of lighter weight than in the beef form. The general appearance of the bull is strongly masculine, but that of the cow is no less feminine than in the milk form.

This breed excels in milk production, it is superior for veal production and also valuable for beef.

There can be no profit in animals that consume only the necessary food for support. The more they consume, digest and assimilate above this, the more profitable. Dairy animals should by no means be choice in the quality of their food. Cows that will freely consume the roughage of our farms and transmute it into valuable products,—milk, butter, veal, beef,—are more valuable than those that require the costlier commercial feeds.

Quantity of production and persistency of milking, during long periods are well known characteristic of this breed. If well cared for, Holsteins will produce from 5,000 to 6,000 pounds of milk in ten months and even more with each increasing year. The quality of this milk will range from 3 to 4 per cent. fat, and from 9 to 10 per cent. solids, not fat. Dairymen handling cows of this breed do not hesitate to admit that their milk contains a lower percentage of fat than the milk of Jersey and Guernsey cows. But in view of their enormous production of

milk, they assert that they average more butter per cow, and that they produce a larger margin of profit.

That the Holstein-Friesian is unapproached by any breed of cattle in the production of large quantities of milk, no one will deny. Observation leads one to believe that the highest yields of butter have been obtained from cows yielding the largest quantities of milk. This seems also to apply to the cows of the other breeds and the results of the official tests of the Jerseys at the World's Fair, confirm this view.

The quality of the butter produced by this breed, so far as tests have been made, shows that it is equal to that of any other breed. Quality in butter depends; first, on the healthfulness of the cows (no breed is more healthy than this); second on the food and drink of the cows, and lastly on the ability of the butter maker.

The Holstein-Friesian bull possesses a vigorous constitution, above, we believe, that of any other dairy breed. Hence, his value for grading up ordinary dairy herds. It appears thus far, that success in cross-breeding depends on using bulls of the more vigorous breed, and cows of the less vigorous.

Cumberland Co., Va.

JAS. H. FRASER.

POLAND CHINA HOGS.

Editor Southern Planter:

In answer to your request, I do not think I can do better than to give, briefly, my experience with Poland Chinas. When I determined to raise pure-bred hogs, the first question was "what breed?" I had a decided preference for the Berkshire, as at that time I knew more of that breed than of any other. I noticed, however that the great hog raising States were using the Poland China, almost exclusively, and I knew that the Western Yankee would not continue to do this, unless there was a reason for it. An investigation satisfied me that the Poland China made more meat on the same amount of feed than any other breed, that they fattened easily at any age, were strong, healthy and made good mothers, and as bred at present the grain of the meat was as fine as the best. The old time Poland China, big boned, spotted and coarse had given way to the short-legged, blocky, broad backed, smooth pig, covered with a fine suit of black hair, with white points the triumph of American ingenuity and skill in breeding. It's ear

is a distinguishing feature, falling forward over the eyes instead of flaring back as in the Berkshire. Except for the ear and the dish-face the Berkshire might be taken for the Poland China, indeed some people not familiar with the breeds, do confuse them.

I attended the World's Fair at Chicago and bought a son of the champion prize winner "J. H. Sanks," to head my herd, and a good one he turned out to be, "Monticello" I named him. To study the characteristics of animals and develop and improve them by mating is an art that takes all ones time and attention and this because of other engagements I could not give. I instead adopted this rule, whenever I found a hog who had taken sweepstakes in a number of the great hog raising States, and demonstrated his preeminence, I bought one of his pigs for my herd. In this way I soon got together a herd that could not be surpassed in breeding in the United States, the sons and daughters of Klevers Model, Chief Tecumseh 2nd, Look me Over, Perfect I know, Proud Perfection, Corrector, High Roller and others noted in the breeds history.

The prices paid by the Southern buyer are very small in comparison with those of the West, some of the hogs I have named sold for from \$2,500.00 to \$7,000.00 each. And these high prices have been going on for many years. Sometime since I sent to a large auction sale of Poland Chinas bids for any six gilts at \$50.00 each. I did not get a pig, the lowest bringing over \$100.00. The Southern farmer can hardly get his consent to give \$25.00 for a sow bred from a sow of a World's Fair Champion, or \$10.00 or \$15.00 a pair for pigs.

My wife used to laugh at me when I spoke of a handsome hog, holding that all hogs were ugly. After I had had these fine hogs for sometime and she had become accustomed to looking at their square forms, broad backs, deep, well rounded hams, and shining, smooth coats of black with white points, we were one day out driving when an old timer, a tall, long-legged, narrow hog, with curved spine, ears like an elephant, and a greyish coat of coarse bristles crossed the road; "Now, I understand," she said thoughtfully, as she caught sight of the beast, "what you mean by a 'handsome hog.'"

Hog raising in the South is a growing industry, and is destined to attain great proportions. The advantages the cotton states offer are numerous and it will not be long before these States will be raising all the bacon they consume. One most important thing is to begin right—to get good stock. A well-bred pig makes more growth in proportion to feed than any

other living animal. A Poland China will make 200 pounds of bacon on the same corn that it requires for a 100 pound razor back. Corn in the South is valuable. Give a big price if necessary to get a well-bred animal who will mark his offspring with his own splendid characteristics. I have paid \$40.00 and \$50.00 apiece for turkeys in order to get the best in the country, and I found them money makers. The same principle applies to raising hogs, cattle, sheep and every thing on the farm, unless it be horses. In order that the latter be money makers, many things enter in besides high priced breeding stock.

Albemarle Co., Va.

S. B. Woods.

HOW TO GET RID OF THE CATTLE TICK IN VIRGINIA.

Editor Southern Planter:

The time has come when the stock man of Virginia ought to be ashamed to breed cattle ticks on their farms when the manner of exterminating this parasite is now known to be a simple and practical proposition.

I cannot think that there is one Veterinarian in the United States who does not thoroughly understand the life history of the cattle tick (*Boophilus Annulatus*) as well as its relation to Texas cattle fever. Therefore it is a waste of time and money for the State to do further experimental work along the line of working with the tick. We know it to be dangerous and expensive to entertain, yet easy to get rid of, then why not all work together to thoroughly clean our State of such a useless, yet expensive parasite?

Knowing, as we do, that the cattle tick not only does not go from one cow, or animal, to another, but furthermore, does not reproduce its kind while on the animal's body; but has to drop to the ground and there deposit its eggs, from which the next crop of ticks spring, the young hatching, though never developing until they can get on the cattle, from which they obtain their nourishment, we can plainly see that if cattle are not allowed to go next year where ticks were dropped this season, the result will be that when the young ticks hatch they will die from starvation if no cattle come along to which they can attach themselves.

The "No fence law" simply means that every man must fence his own cattle; that is he cannot allow them to run at large or on the Commons, as it is called. In the counties which have not the above law, a farmer is compelled to keep a lawful fence, ten rails, to prevent cattle from the commons trespassing

on his farm. Of course the result is that there are few lawful fences, followed by the still worse result that the people who do not care to keep their cattle at home simply allow them to run all over the neighborhood and pasture any where except at home. The no-fence law means that *every man's line is his fence*, thus he does *not have to fence against his neighbor's cattle*, yet cannot allow his own to *run at large*. Therefore, where there is a "no-fence law" cattle are not allowed to run on the commons, and use the same ground every year, thus never allowing the ticks to die out in a neighborhood.

Another way that the farmer often gets rid of the ticks on his farm, though he may not realize that he is doing so, is by the rotation of crops; pasturing the field this year, and cultivating it next. In fact, any method which prevents cattle from using the pasture, or ground on which the eggs have been deposited and young ticks have hatched, will soon clean that vicinity of ticks. What a simple method if all of the cattle men would only realize it!

However, we do not want to rely solely upon the two above mentioned ways of getting rid of the cattle tick, for we need to be in a hurry about this and, therefore, use every practical way possible in addition to the enforcement of the "no-fence law" and the practice of crop rotation.

While the "no-fence law" and the rotation of crops on the farm, will, I believe, in a few years clean any county in this State of cattle ticks, at the same time I advise the careful *inspection* of all cattle this spring, summer and fall in the vicinities where the ticks were allowed to drop last fall.

Furthermore, when an animal is found to have even one tick on its body, get that animal up in a stall where you can look it over thoroughly. Pick off every tick that you can find, then apply sulphur and lard lightly, so as not to interfere with the health of the animal, as very little grease will kill the very small ticks when it is applied directly over them; 3 or 4 such inspections will usually get all of the crop, and if you have burned the ones that you picked off, the result will be that your farm will soon be entirely free from cattle ticks.

Sulphur, fed with the salt, is another way of keeping ticks off the cattle, as they do not thrive well when they come in contact with the sulphur, while the latter is being thrown off from the cow's body through the pores of her skin.

Not only should the animals be carefully inspected several times that we have the slightest cause to believe that they have been exposed to an infected

field—that is, where ticks were dropped last season—but such animals must be kept in a small field, (one that you are going to cultivate when you take the cattle out, or else put sheep or hogs on this pasture); in other words, *quarantined* where there can be no chance of even one tick being dropped where it will deposit eggs and the young ones get on to cattle.

In the opinion of the writer, if the counties which are now in quarantine will only get the Board of Supervisors to recommend to this office—that is, to the State Veterinarian, here at the Virginia Polytechnic Institute—several good, practical cattle men, and request that the said State veterinarian appoint these men as local inspectors for said county, the work to be done under the supervision of the State Veterinarian, but the county in question to pay said inspectors, the result will be that said counties will soon be above the quarantine line.

The ticks are the cause of this line, now remove the ticks, get entirely rid of the ticks, and show me that you are in a position to protect your county from the infected territory in this, as well as in any other State, and I will see that your county is taken out of quarantine.

You must have some *good local inspectors* to attend to this work, if not, some one is occasionally going to drive some cattle from the infected portion of the country across your place, and there drop a tick. Some one must be on the lookout for this. The inspectors should be required to watch and report the slightest violation of the law, not only by cattle men from the adjoining counties, but by the farmers themselves when they have quarantined cattle on a farm. Stock so quarantined by the inspectors must be kept so until by them released. Some men are really protecting the tick by saying that cattle ticks do no harm. This is folly, as they are the cause of the loss of thousands of dollars every year. We do not want them in Virginia any longer, we can get rid of them, therefore, we should.

J. G. FERNEYHOUGH,

State Veterinarian.

Experiment Station, Blacksburg, Va.

A PRACTICAL TALK ON THE SHEEP'S STOMACH.

Editor Southern Planter:

If our good editor will permit it, the writer would "butt in" this month with some very practical sheep-doctor talk. These observations are founded upon some bitter experiences, and what has been learned may help some fellow in trouble. The time of the

year has come for the annual uprising in rebellion of sheep stomachs, and you may as well arm yourself.

I shall begin at the practical end of the talk. The sheep's stomach is a very complicated affair, and I think every sheep man should know something about it, but you can wait to study up the anatomy. You want to know what to do with that sick lamb or sick ewe.

Impaction and colic are the two stomach troubles so common in the winter and spring months.

There are three kinds of impaction that can be easily distinguished—the impaction of the first stomach, the impaction of the third stomach and the impaction of the fourth stomach. Thank the good Lord the second stomach can't "impact." If you get mixed up in your arithmetic about the stomachs, you can wait for our lesson in anatomy. And now we will see what causes these troubles and how you may recognize them.

Some morning, after feeding your ewes a large grain ration an hour or two before, you go down to let your sheep out of the shed and you will find one old ewe lag behind in the shed. She will withdraw to a corner of the shed with ears hanging down and an anxious look on her face. If you approach, you will hear occasional grunts. You notice her left side is rather large, and when you press on it, it is not elastic like a bloated sheep, but yielding and doughy. You remember seeing a ewe stray behind the flock one evening when you went to drive them out of the wheat field. She was affected the same way and died two days later, after much suffering. Both were strong, healthy ewes and heavy feeders. The first got to a big pile of grain and gulped down too much, the other got too much wheat. This is impaction of the rumen, or first stomach, and it is very common in winter when sheep get very hungry. It is no simple matter. What you do, you must do quickly. If you wait until the walls of the rumen become thoroughly paralyzed and inflammation sets in, your sheep is a goner. A big dose of epsom salts, if administered quickly, is apt to start up motion in the rumen and force out some of the packed material. It is well to give along with it as a stimulant, a teaspoonful of aromatic spirits of ammonia. If there is no relief in an hour, try a dose of one-half ounce in a pint of water. If this fails, the only chance to save the sheep is an operation, which is not advisable, unless it is a valuable breeding ewe. Some times a large lamb will come up in the afternoon off the wheat in this condition. You will have to hustle to save him. An enema of soapy water with a little

epsom salts in it may open up the bowels and encourage the breaking away of the mass in the rumen. Many a fine lamb dies in the spring from this. He will generally be about the largest and greediest in the bunch.

Sometimes you will find a ewe with neck straight, frothing at the mouth, grunting with pain, breathing quickly, and often starting up with wild and uncertain movements followed by great exhaustion. There is no distension of the abdomen. The sheep may not have eaten very much. She is apt to be a sheep of weaker constitution than others. The trouble often occurs when sheep are taken from grass and given dry food, or sometimes change from a very abundant pasture to one that furnishes little nutrition. In the South, changing sheep in the late fall from clover and orchard grass to half dead Bermuda, would often furnish the conditions. You have impaction of the third stomach now. I never saw this in lambs. Just as soon as you see it, give about one pint of linseed oil and follow this with epsom salts, or aloes within an hour. This sheep is completely off feed, does not chew her cud and nothing will induce her to eat. If she does not eat, she will surely die. Her strength must be maintained, and you must stimulate her nervous system, which is all torn to pieces. Every two hours give her, as a drench, about three ounces of warm oat meal gruel. As a stimulant, use whiskey or aromatic spirits of ammonia. Some advise strychnine, but I never used it. Twice a day you should administer an enema of soapy water with a little salts. You have got to hustle to save the life. As you want the drench to pass right on to the third stomach, or manypplies, you must administer it slowly. It will be explained later why you must drench a sheep in different ways to bring the drench to the right stomach.

If you keep the sheep going for four or five days, you can pull her through if you can get the appetite back. The best thing for this is a good tablespoonful of the standard tonic mixture; equal parts of sulphate of iron, ginger, gentian and rhubarb. In such a case, you could make pills of it with a little butter and push it down the throat, or you could wash it down by shaking in a drench bottle and drenching quickly.

The impaction of the fourth stomach is found only in lambs, but with them it is probably the most common of all complaints in the winter, especially in case of lambs you are forcing by feeding cow's milk. The lamb gets dull and stupid, is unwilling to move, the belly is very tender and often swollen, the breathing

is rapid and sometimes passes into painful panting. I know you recognize this trouble and have lost many a fine sheep from it. If you are only fortunate enough to see the lamb soon after it is taken, you can save it. The whole trouble is due to the curdling of large quantities of milk in the fourth stomach, thus packing up and stopping effectively the whole digestive apparatus. Such lambs are generally much constipated, but often are affected with white scours. The white scours probably being only the water squeezed out of the curdled milk, though there is some dispute about this last fact. I have seen very few lambs with the white scours, and never examined one that died of it, but I have noticed that they are affected just as I have described, and I judge the cause is the same.

The first thing is to get the pile of curdled milk dissolved. Bi-carbonate of soda will do this. Give it in thin gruel of oat meal every hour. Give a teaspoonful of soda in about four ounces of gruel. Follow this with castor oil, and give an enema of soapy water containing a little salts. You must work on such lambs at both ends, and lose no time about it. If the lamb gets very weak, give it a teaspoonful of aromatic spirits of ammonia in four ounces of water.

Sheep affected with impaction of any kind will not eat for days, and this often brings on death. Never let a sheep die just because it loses strength from want of food. Get a drench bottle and make it take food. It is proverbial that a sick sheep won't eat. Make it eat. Nutriment is necessary, except in very rare instances, to help man and beast out of most any trouble.

Colic is not so common among sheep, especially older sheep, but is quite common in lambs fed on cow's milk, or lambs whose mother's milk has been rendered, through some cause, unsuited to them. Often when ewes are penned up for several days and can get no exercise, there will be two or three cases of colic. You can easily tell it; colicky pains, getting up and lying down, grinding teeth, and so forth. The following is a sure cure: One teaspoonful of ginger, one teaspoonful of ether in four ounces of water. A rectal injection of soapy water will often prove beneficial.

We have not completed the common stomach troubles, but you have enough to help you through this month.

H. B. ARBUCKLE.

THE MAKING OF PRIZE CATTLE.

The University cattle which won third prize at the

Fat Stock Show in Pittsburgh last week in competition with the world, were the last of six carloads purchased three years ago for the purpose of determining the influence of age upon the cost of beef production, which the Experiment Station is conducting in co-operation with the Federal Department of Agriculture.

One-third of this original bunch of cattle was finished as yearlings, and topped the Chicago market for a year. The second third was finished as two year olds, and also topped the Chicago market for the year. The third portion of these cattle won third prize, as stated above, and topped the Pittsburgh market for heavy cattle, bringing \$7.10 per hundred, the next best load of heavy cattle bringing \$6.50.

They were high grade Herefords, purchased in the neighborhood of Columbia.

In the meantime, the Experiment Station, has in the same experiment, matured one bunch of yearling Angus and a bunch of yearling Shorthorns. They now have on feed ninety Shorthorns, with a view to covering the same ground with a different breed.

In addition to the test of the influence of age upon the rate of cost of gain, these cattle were divided into lots of eight each and fed different grain rations on pasture, one group receiving shelled corn alone, another, one-fourth cottonseed meal and three-fourths shelled corn, another one-fourth linseed meal and three-fourths shelled corn, another one-fourth gluten meal and three-fourths shelled corn, all having access to equally good grass.

In the case of the yearlings and two year olds, a more rapid gain and, as a rule, a cheaper gain, was made on the mixed feeds than on corn alone. It is also true that in every case the younger cattle, receiving mixed feeds, became fatter, carried a better bloom, and were, from every point of view, more marketable.

In the case of three year old or the mature cattle, however, the difference in the rate and economy of gain between straight corn and the mixed feeds was almost inappreciable, and there was not a marked difference in the fatness of the different groups.

H. J. WATERS, Dean.

Agricultural College, Mo.

GALLOWAYS FOR VIRGINIA.

Editor Southern Planter:

It is a little over three years since I bought the first registered Galloway cattle to come to this State—Gloucester county, Virginia. As, with the exception

of one man who has just started a herd, I am still the only breeder of these cattle in the State, it would seem proper for me to let others know how they have thrived in their new home.

Well, in the first place, they have been satisfactory. I am willing to tie to them as a beef breed in preference to all others for this location. If I were in a tip top blue grass country, I would be much tempted to keep Shorthorns—the most magnificent cattle in the world. If I had to fit cattle for market in the feed lot without any grazing, I believe the Angus would make the most money, as they are the smoothest of all and will top the market. If I wanted to run a dairy and raise beef steers, and only keep one breed of cattle, the Red Polls would fill the bill about the best. But, for a beef breed, when pasture is the only consideration, and when the cattle are required to eat a great deal of rough stuff, and where they have to stand in much falling weather in winter, the Galloway is without rival. To do the Hereford cattle justice, I must say here that they may do as well on grass as the Galloways, or a little better on very rich grass, but as the Galloways will beat on rough grass, call it even. Then when the winter comes on and you want your rough hay and fodder to form a large part of your ration, the shaggy blacks will show their superiority, and if you give them their choice between shelter and out doors, they will stay outside, unless the wind be blowing a storm. No cattle like wind, but the Galloways don't mind the coldest rain that ever fell, as, indeed, it never reaches their skin.

In the January issue of the Southern Planter, Professor Soule gave a very good description of the Galloways, but there are a few points I would like to emphasize before I close. These are the strong points of the breed, as I have found them:—1, *Very prolific*. I have average a little better than 100% calf crop since the first year.

2. *Indifferent to bad weather.*

3. *Great cattle to dispose of coarse grass and roughage.* They do not discard rough feed when they are given good feed along with it, as more delicate feeders sometimes do.

4. *Great prepotency.* A Galloway bull will make his grade calves look more like pure breds than any other sire.

Prof. Soule thinks the coats of hair will not be so good here as in the North. I see no difference between here and the middle West.

N. S. HOPKINS.

Gloucester Co., Va.

THE RELATION OF ROUGHNESS AND CONCENTRATES IN BEEF PRODUCTION.

Editor Southern Planter:

The winter feeding of beef cattle is a problem of much importance to our farmers, whether they be engaged in the rearing of calves or yearlings or the making of export cattle. In all three cases the animals have to be carried through the winter, and the question is how to do this at the least cost and insure the largest number of pounds of gain. Ordinarily, calves as now feed and handled gain from 50 to 100 pounds during a winter feeding period of from 120 to 180 days. At best, yearlings rarely more than hold their own, while export steers very often shrink as much as 100 pounds. At the present time, the farmer depends almost entirely on blue grass to make all the gain and growth he obtains on his cattle, and while it is clearly recognized that blue grass is an ideal food, as under the most favorable circumstances it is only available for six months of the year, it is apparent that the animals practically stand still for the balance of the time. The economics of this problem have not been worked out, but it hardly seems that the farmer can afford to maintain his animals for nothing for at least half of the year, and certainly not when it is considered that he is feeding enough food if given under better conditions and environment and in a different form, to insure considerable gain in weight, whereas now there is frequently a loss. It is quite possible that beef animals that are now kept for three years could be finished at comparatively little more cost in from two to two and a half years at least, and attain a weight of 1350 pounds, thus insuring the animals being of a sufficient weight for export purposes, if they were well finished and possessed of sufficient quality.

The practice of winter feeding in the open on blue grass sod is well suited to certain conditions of the South where the land is hilly and broken, and it would be well nigh impossible to haul the corn off and feed it and re-distribute the manure over the ground. In many other places, however, where the practice is followed, and particularly on moderately sized farms, there is no reason why the stover often allowed to go to waste should not be utilized to advantage. Silos might also be erected and provide a cheap and succulent form of food that would enable the owner of the cattle to obtain nearly as many pounds of beef per head per day as his animals would make on blue grass and at comparatively little greater cost.

The form of roughness fed in the winter has a

marked influence on the rate of gain and on the condition of the animal at the end of the feeding period. It is clearly shown by results that silage, which can be grown on every farm in the South at a low cost, is more valuable under certain conditions for beef production than timothy hay, costing four to six times as much per ton. It is also interesting to observe that shredded stover, so often neglected or fed with comparative indifference, because it is regarded as a cheap roughness and almost a waste product on the farm, compares fairly well with the much more expensive and highly prized timothy hay. It is quite clear, from the figures presented in this report, that the feeding value of timothy hay is frequently over-estimated.

The feeling is general among farmers that timothy hay is too expensive to feed to beef cattle during the winter time, especially when they are making no practical gains, and recognizing that beef production constitutes one of the chief industries of the South, it seems very important that some effort should be made to discover, if possible, forms of roughness which could be substituted to advantage for timothy hay and which would insure satisfactory gains being made through the winter feeding period. With this idea in mind, an experiment was undertaken last fall with sixty head of beef cattle for the purpose of comparing the relative feeding value of silage, stover and timothy hay. The cattle were divided into six groups of ten animals each. Thirty of the animals were steers and thirty were heifers. These animals are what would be classed as second or third grade. They were not "tops" or "picks" by any means, but represent a class of animals of which there are entirely too many in the country, but which, nevertheless, are such as a large number of farmers attempt to feed with unsatisfactory results, and when their true character and condition are understood, it is not surprising that they should fail to make satisfactory gains. Both the quality and condition of cattle are factors that should be borne in mind in considering the results, because some might conclude, as no profit was shown, that the winter feeding of beef cattle cannot be engaged in profitably in the South. This would be a false conclusion, and the object in using just this class of cattle was to demonstrate very clearly that one of the greatest drawbacks to the beef business at the present time is the difficulty of securing a grade of animals that will make uniform gains for a rational consumption of food.

In experiments which have been conducted with a superior grade of cattle, a pound of gain has been

made for the consumption of about half as much grain as was used in the present test, showing very clearly that with certain classes of animals fed on the farms, the power of assimilation and digestion has not been well developed, and on that account these animals will always be expensive and unsatisfactory to feed and handle. For instance, in our experience, cattle have been fed for 180 days on rations somewhat similar to those used in this experiment, and when slaughtered, dressed out from 61 to 63 per cent. of the live weight, whereas, animals of inferior breeding and quality, when fed similar rations, failed to dress out more than 54 to 56 per cent of the live weight. There was a difference, therefore, of from 6 to 9 pounds between the two sets of animals, which means that in one instance there were 9 pounds more of offal, or at best cheap meat, worth from 2 to 4 cents per pound, whereas, in the other case, from 6 to 9 pounds of choice meat, worth from 12 to 15 cents, was obtained. Is not this a striking example of the value of improved blood to the cattle feeder? Those who contemplate the winter feeding of beef cattle should first determine to secure the right class of animals, and unless they can do so, it would be better for them not to attempt to feed at all unless they are sure of a wide margin between the buying and selling prices.

Another question which is of considerable concern to feeders, generally speaking, is the merit of heifers for beef-making purposes. Considerable prejudice exists against them and whether well founded or not is still a question of controversy. There is no reason for believing that there is as much difference between steer and heifer beef as is sometimes thought to be the case; hence, a comparison of the two classes of animals was undertaken. Furthermore, in many sections, and particularly where grass is not good, the farmers depend more generally on feeding cattle through the winter and selling them before grass comes in the spring; consequently, the problems involved in the present test have a wide application.

It is generally felt that feeding grain to cattle in any considerable quantities, where they are to be turned on grass is a mistake. Also, that silage, if constituting the sole roughness for beef animals, will not be satisfactory, as they are certain to drift when turned on grass. Further, a wonderful prejudice exists against the use of silage in any form for beef making, because it is thought that a watery food like silage cannot be satisfactory, and that the animals will make no greater gains on silage than on dry food. These ideas are not sustained by results ob-

tained in this and in former feeding trials, as the silage-fed cattle made much larger gains, showed more quality at the end of the feeding trial, and in any discriminating market would have brought a considerably higher price than the other animals. The fact that silage is admirably adapted for the nourishment of cattle through the winter time is borne out by the fact that they make such fine growth and development on blue grass, which contains about 65.1 per cent. of water as compared with 70.8 per cent. of water in silage. Blue grass, on the other hand, is richer in protein than silage made from corn, but when this is offset by feeding some food rich in that element along with the corn an ideal fattening ration is obtained, and one, everything considered, that compares remarkably well with grass.

While there is room for the development of every phase of our live stock interests, the grazing of beef cattle is much better understood than the winter feeding. Furthermore, in many sections of the South, summer grazing cannot be practiced, owing to the shortness of the grass, but the winter feeding of cattle might be developed into a permanent business were it clearly understood that they could be fed and handled to advantage on cheap forms of roughness, which can be grown on every farm in the State.

The cattle selected for the trial were put on preliminary feeding for ten days. The experiment proper commenced on November 17th and continued until May 18th, or 180 days. An effort was made, not only to compare the value of silage, stover and hay, but of linseed meal and cottonseed meal, when fed with corn and cob meal. Corn and cob meal must, of necessity, constitute the basis of a ration for the winter feeding of beef cattle, because it is the chief cereal growth in the South and costs less in proportion than any other that can be utilized with satisfactory results. For a long time, it was believed that corn or corn and cob meal alone was the only form of grain which could be fed to advantage for fattening purposes. It now seems clear, however, that some form of concentrate rich in protein can be added to the ration with decided advantage and profit. Which one of these feeds should be selected is often the question, but it would seem, from the work that has been done, that if the food is palatable, its merits will depend largely on the content of digestible protein it shows. Of course, the other constituents should not be ignored. Carbo-hydrates are plentiful on every farm; there is no need to purchase them. Fat is more expensive and difficult to obtain than carbo-hydrates, but nothing like as expensive as protein, so

that after all the amount of digestible protein contained constitutes its chief value if it is to be used as a supplemental concentrate for corn, which is recognized as superior for fattening purposes to any other known food-stuff.

Two of the leading protein-producing foods which can be utilized to advantage by Virginia feeders are linseed meal and cottonseed meal. Therefore in the first trial, it was deemed advisable to compare these on the basis of digestible protein they contain. The cattle were divided into six groups of ten each—five steers and five heifers. The first three groups received silage, shredded stover and timothy hay, with corn and cob meal and linseed meal. The remaining groups received silage, shredded stover and timothy hay, with corn and cob meal and cottonseed meal. The basis of the protein content in the linseed meal and the cottonseed meal was determined by the chemical department. The linseed meal was undoubtedly the pure article and satisfactory in every way. The cottonseed meal was certainly adulterated with hulls, containing at least four per cent. less digestible protein per 100 pounds than it should have. The linseed cost \$28.00 and the cottonseed meal \$27.00 a ton, delivered. The cost of 100 pounds of digestible protein in linseed meal was \$4.30; in cottonseed meal, \$4.06. If the cottonseed meal had been pure, the ratio of difference would have been considerably greater. Pure cottonseed meal should contain 37.2 per cent. of digestible protein, or 744 pounds per ton. At a purchase price of \$27.00 a ton, 100 pounds of digestible protein would only cost \$3.63, or 43 cents less per hundred pounds than in the sample used in the experiment. This is an admirable argument for the purchase and use of pure foods. Furthermore, it is doubtful if cottonseed meal adulterated with hulls is as digestible as the pure product, for the hulls are extremely low in nutritive qualities and certainly do not increase the palatability of the meal. While we can hardly say that food-stuffs may always be compared on the basis of the protein equivalent, still it seems about the only rational method of comparison available at the present time, and until some thing more definite is known, it is the safest basis to follow in the purchase of foodstuffs intended to supplement corn.

Some of the more important conclusions to be drawn from this work may be summarized as follows:

The largest gain per head per day was made by group 1, which received silage, corn and cob meal and linseed meal. These animals made a uniform gain of 1.59 pounds, 1.66 pounds for the steers and 1.51 for

the heifers. The group receiving silage, corn and cob meal and cottonseed meal did not do so well, gaining only 1.33 pounds per head per day, 1.35 for the steers and 1.50 for the heifers. These two rations were decidedly superior to the others.

Group 2, receiving shredded stover, corn and cob meal and linseed meal, made an average gain of .83 pound per head per day, .8 for the steers and 1.03 for the heifers. Group 5, which received stover, corn and cob meal and cottonseed meal, made an average gain of 1.01 pound per head per day, the results being practically the same for the steers and heifers.

Group 3, receiving hay, corn and cob meal and linseeds meal made an average gain of 1.15 pounds per head per day. Group 6, receiving hay, corn and cob meal and cottonseed meal, made an average gain of 1.05 pounds per head per day. The heifers in this group did not gain quite so well as the steers.

There was a difference of from 1-3 to 1-2 a pound of gain per head per day in favor of the silage-fed cattle. They also finished out better, and in any discriminating market would certainly bring a better price than the dry-fed cattle.

The results indicate that the amount of concentrates to commence with should not be large, and that the increase should be made gradually, keeping the animals on full feed only from 60 to 90 days when fed for 180 days.

Of the three forms of roughness fed, the silage was eaten with the greatest relish and there was absolutely no loss; whereas, with the stover, the loss amounted to 13.5 per cent., and with hay, 4.16 per cent. Where a large number of animals are fed, this would make a considerable difference in the cost of the ration, except that the shredded stover can be utilized to advantage for bedding.

That the cattle fed were not of a satisfactory quality is evidenced by these results. In the first place, they should have made a pound of gain for the consumption of 3 to 4 pounds of grain, whereas, with silage the average for the whole period was 6.54 pounds; with stover, 11.18 pounds, or nearly twice as much, and with hay, 8.99 pounds, or 2.45 pounds more per head than with the silage-fed cattle.

It would take but comparatively little money to purchase a very superior grade of beef sires to replace the bulls of inferior blood now so commonly used. These sires should get at least fifty calves per season, worth from \$10.00 to \$15.00 more per head than those now obtained. Provided the sire cost \$200.00, this would represent a net profit of \$550.00 and the sire would be useful for several years. In

view of the results witnessed in this experiment, it is remarkable that the quality of the live stock is not more rapidly improved.

Considered on the basis of the content of digestible protein, there was little to choose between linseed meal and cotton seed meal for balancing up the corn and cob meal, which must of necessity constitute the basis of a ration for beef cattle in the South. The relative cost of the foods will determine which one to select. It is true that the results were not quite so favorable to cotton seed meal, but it should be remembered that the sample was adulterated. 100 pounds of digestible protein in the sample used cost \$4.06, and in the pure article would have cost \$3.63, or 43 cents less per 100 pounds. This should be sufficient argument to convince every feeder of the necessity of purchasing unadulterated foodstuffs.

The relative merit of different forms of roughness in feeding cattle is not fully appreciated. Notice that the silage fed cattle made an average gain of 1.46 pound; the stover fed cattle .97 pound, and the hay fed cattle 1.10 pound. Also bear in mind the consumption of grain for a pound of gain and the importance of selecting and utilizing a palatable roughness that is cheap and well suited to the needs of cattle will be more clearly appreciated.

The buying price of the steers was 3.75 cents and the selling price 4.75 cents; the buying price of the heifers was 3.50 cents and the selling price 4.50 cents. A margin of one cent was not sufficient to cover the cost of the food, leaving out of consideration the manure. To have obtained a profit it would have been necessary to sell the silage fed cattle at a margin of 1.25 cents; the stover fed cattle at a margin of 1.5 cents, and the hay fed cattle at a margin of 2 cents. This would have been clearly impossible in any market, even if the cattle had been of the highest quality, and is the most convincing evidence of the fact that timothy hay is a much overrated foodstuff for beef cattle and that its expensive nature precludes its use in comparison with silage.

These results show clearly, first, that the winter feeding of cattle to be profitable will only result from the use of animals of a good grade; second, that linseed meal or cotton seed meal may be used to advantage to balance up the grain ration; third, that silage is superior to stover or timothy hay as a roughness; fourth, that with the right class of cattle these foods can be fed to advantage and profit at the ruling market price for foodstuffs; fifth, that under judicious management the winter feeding of beef cattle can be made a profitable industry in the South.

Virginia Exp. Station. ANDREW M. SOULE.

THE POLLED DURHAMS AT THE INTERNATIONAL.

Polled Durhams were a quality show. Numbers have been larger, but the merits of this hornless type of Short-horn have never been more strongly presented. Several exhibitors who hitherto have contributed high-class stock did not enter the competitions this year, and their absence was noticeable. The female classes were better filled than those for bulls, and the character of the animals was perhaps of higher order.

Marked improvement is being effected in Polled Durhams. Considering the youth of the breed its friends are to be congratulated upon the fruitful evolutionary work which they have performed. The old criticisms have been dissipated by modifications of those characteristics against which they used to be directed. There are many Polled Durhams which illustrate the most approved and profitable beef type just as satisfactory as cattle of any other breed. To produce these cattle without horns has involved a nice application of breeding principles. Creative work is difficult, but it has been prosecuted with splendid success by Polled Durham breeders. Their labors have begun to fruit. This type is steadily gaining ground. Founded upon the oldest race of beef cattle in America and appealing to that large and growing class of farmers whose only objection to the parent breed is its horns, the Polled Durham is striving onward to a great destiny.—Breeder's Gazette.

SUCCESSION OF GRAZING CROPS FOR HOGS.

Any farmer can select a six-acre tract of land convenient to his barn and divide it off as follows. The tract of land selected should be rather long and narrow and a roadway should be left along one side. Divide the land into six equal areas by means of permanent fences.

The first area should be seeded to grass. In some sections blue grass will be used; in others, orchard grass; and still others, Bermuda. The temporary or permanent shelters for the hogs should be erected on this section of land. These need cost very little, for a suitable shelter for a brood sow and her little ones can be built at a cost of \$8.00 or \$10.00.

Section two should be seeded to sorghum as early in the spring as possible. After it is grazed down, seed to winter oats and hairy vetch, or crimson clover may be used. This will furnish some late fall and early spring grazing.

On Section three sow cow peas as early in the

spring as possible. After the cow peas are grazed down, put in crimson clover which will be available early the next spring.

On section four plant Spanish peanuts.

On section five prepare the land with the greatest possible care, and seed alfalfa. Alfalfa will be the most desirable of all the grazing crops as it can be grazed over two or three times during a single season, and will remain on the land for several years, if well established.

Section six may be devoted to artichokes to furnish feed through the late fall and winter.

Some grain should be fed to the hogs on grazing crops—one to three pounds per day depending on the age and size of the animals. An ear or two of corn will often be all that is necessary. By using grazing crops the corn can be made to go much further, and a better quality of pork obtained at a lower cost per pound. Hogs kept on grazing crops are under the very best sanitary condition. The plan suggested will provide grazing for 25 to 50 hogs, depending on the character of the land and the crop season.

The several areas should not be kept in the same crop from year to year, but a rotation should be practiced that will enable a variety of crops to be grown on the land, and so preserve an equilibrium in the soil food supply. The utilization of grazing crops for pork production is a matter worthy of the most serious attention of our farmers.

ANDREW M. SOULE,

Dean and Director.

Experiment Station Blacksburg, Va.

CURE FOR HOG CHOLERA.

Common Salt	1 oz.
Pulv. Ginger	1/2 oz.
Hickory Ashes	1 oz.

(Carefully burnt to avoid grit.)

Flaxseed meal enough to make 8 ounces.

Mix intimately.

Give one or two tablespoonfuls in warm water, with a cow's horn.

A cow's horn should be kept on the farm to give drenches to stock, as it is not liable to break in the mouth as is a glass bottle. ATTENTIVE READER.

The above is sent us by an old reader of the Planter who says that he has known it used with advantage. We doubt very much whether there is any remedy for hog cholera which is reasonably reliable after it has once attacked a herd. Its ravages may however, be largely prevented by the use of the tonic published in our December issue.—Ed.

The Poultry Yard.

NOTES.

I have many inquiries relative to incubators and brooders, what kind, how large, which is the best, can I afford to buy one to hatch 300 chicks how long will they last, how long does it take to hatch eggs in a machine, etc., etc. I have said several times in these notes that there are several good incubators, some fairly good and some worse than worthless, because they not only cause disappointment, but loss as well. It must be evident to everyone that it would be unjust for me to recommend any particular make of incubators. A man with experience, a suitable room, good eggs and a clear understanding of the conditions necessary to successful incubation can hatch chicks in almost any kind of an incubator while a person lacking any or all of these essentials will fail with the best machine ever put on the market. A cheap incubator is an abomination. No man, or woman either, can so manage any machine that it will hatch every fertile egg or make a satisfactory hatch every time. My advice is to buy a good incubator, not less than 100 egg capacity and run it the best you can. As I said in December notes, "every manufacturer has the best machine made." Everyone knows that this cannot be true. No man can make as good a suit of clothes for \$10.00 as he can for \$20.00. When a manufacturer claims to have the "best" hatcher, sell it on trial, if not satisfactory return it, will hatch any where, in any kind of a room, shed or on the back porch, will hatch every egg, will last a lifetime, etc., etc. Shun that fellow. I have used many different machines and have had a few standard made ones of the best manufacturers that would not hatch satisfactorily. Have always found it quite difficult to get even these old reliable firms to take these condemned machines back and replace them with satisfactory ones. All I can say is that I can only refer subscribers to the machine I now use and I do this only in private correspondence.

I think anyone wanting to raise 300 chicks can save time and money by hatching them in an incubator. One can hatch earlier, have them all of one size, have less bother, less loss and very much less vermin to contend with.

A good incubator, made of good material and well taken care of will last and do good work for several years, possibly in rare instances 10 years. The average possibly may be 5 years.

It takes 20 to 22 days to hatch hens eggs. In this particular, the machine method is no time saver. Good strong fresh eggs will hatch in 24 hours less time than weak old germs. Eggs taken fresh from the nest and put in the incubator while warm will hatch in 19 days if the heat is kept even and if they have plenty of air.

Brooders are the cause of more mortality among chicks the first 3 or 4 weeks than any or all other causes put together and largely because of a lack of plenty of pure air. Very much of the oil sold in the South is unfit to use in incubator or brooder lamps. The oil must be first-class, the burner must be good, the wick must be clean and the entire lamp and heating device must be clean and so arranged that no gases or fumes can enter the brooder chamber or hover. One man wants to know whether a stove pipe could not be arranged to heat a brooder, with an elbow at each end turned down and a lamp placed at each end? I repeat, the heating device *must* be so arranged that no gases or fumes from the lamp can enter the brood chamber. I make my heaters and domes double seamed throughout, and of best galvanized iron. Nothing but pure warm air can enter the hover. Here are the essential features to success in raising chicks that are hatched right. Plenty of pure warm air, plenty of exercise, clean, dry floors, hard dry feed, clean fresh water, no lice.

Many subscribers and readers of the Planter have trouble with chicks dying in the shell at hatching time and ask me the cause and ask for a remedy. I have had many letters the past month in regard to this trouble and will answer here all such inquiries, as it would require too much time to reply to each individual inquiry. Incubator manufacturers have this same trouble, only, they do not tell anyone about it. All the large factories have men employed constantly to solve this problem. Each year they make some slight change in their machine in the hope of overcoming this great drawback to artificial incubation. They issue new instructions almost every year and yet the chicks die in the shell. It would certainly be a blessing if some of the incubators had shared the same fate. It would have saved millions of eggs and much disappointment.

My experience is that every person who operates an incubator must solve this problem for himself, in his own locality, with his own eggs, with his own machine. I have lost thousands of eggs in this way

by following the printed instructions of the manufacturer. Certain conditions may enable a man to hatch successfully in one locality and with the same machine, same eggs and identically the same care may mean failure in another locality. I find that eggs require very much more ventilation and less moisture (supplied) here in tidewater Virginia than in northern Indiana. Very few incubators on the market, supply enough pure, warm air to the eggs at all times. I aim to supply at least three times as much air to the eggs the third week as I do the first. From the fifteenth day to the nineteenth day I air the eggs from thirty to sixty minutes by placing the trays on top of the incubator. I try to have the temperature of the hatching room as near 65° as possible. If the weather is very warm and the temperature much above 75 in the room I leave them out sixty to ninety minutes and leave the incubator doors open. I never put moisture in until the morning of the eighteenth day and if I can keep the air humid in the incubator room I do not use any moisture in the machine. Moisture lamps and hygrometers are a delusion and a snare. I believe that 90 per cent. of chicks die in the shell for want of fresh air or are chilled the last time they are aired and cooled. A new born babe will live several days without food and water, if kept warm, but will die in a few minutes without air. The chick must have air while in the shell and plenty of it at hatching time. Watch a brood of chicks at hatching time under a hen in warm weather. You will see them tucked under her feathers but as soon as they are dry and strong enough they will have their heads out. Here it is as short as I can make it: 1st. Have good eggs. 2nd. Good incubators. 3rd. Good oil and lamps. 4th. A good room to hatch in. 5th Give plenty of pure warm air all the time and a great plenty after the second week. 6th. In hot dry weather add moisture to the air on and after the 18th day. 7. Have the incubator room well ventilated all the time.

CAL. HUSSELMAN.

Roxbury, Va.

A BIG POULTRY FARM.

Isaac Wilbur of Little Compton, R. I., is said to have the largest poultry farm in the world. He ships 130,000 to 150,000 dozens of eggs a year. He keeps his fowls on the colony plan, housing about 40 in a house 8 by 10 or 8 by 12 feet in size, these houses being 150 feet apart, set out in long rows over the gently sloping fields. He has 100 of these houses,

scattered over three or four fields. The food is loaded into a low wagon, which is driven about to each house in turn, the attendant feeding as he goes; at the afternoon feeding the eggs are collected. The fowls are fed twice a day. The morning food is a mash of cooked vegetables and mixed meals; this mash is made up the afternoon of the day before. The afternoon feed is whole corn the year round.—Country Gentleman.

WHAT THE HENS DO.

Mr. C. Hawkins, of Albemarle Co., Va., writes us that last year he kept 31 common hens. This flock netted him clear of all expenses \$1.58½ each, after providing him with all the eggs he needed for home use and 217 eggs for hatching. Not a bad showing for the despised "old hen."

WHY DO HENS STOP LAYING?

Editor Southern Planter:

Why is it that hens in good condition will stop laying as soon as the first cold snap comes? This is a matter that is worthy of attention. It is a serious thing, when eggs are selling at two cents each, to have the hens suddenly cease laying, when they should be filling the eggs basket.

But there is a cause for it. It is not for lack of food, as the cessation of egg production may happen in a single day. It is not due to disease for the hens may all be healthy. The cause, in my opinion, is lack of warmth. While the heat of the body comes from the food eaten, yet when the cold is severe, the digestion is not sufficiently rapid to create the heat necessary to protect the bird from the cold and also to continue egg production.

Egg production ceases because nature's first effort is to take care of the bird before it is permitted to do extra work in production. What is the remedy? It is simply to guard against the loss of animal heat. This may be done by keeping the cold winds away from the hens, by providing shelters and sunny places for the hens. Try also and make winter as near like summer as you can by giving some green food and cut green bone or beef scrap, and give the birds a little extra attention, and clean houses and the hens should not get on a strike.

O. E. SHOOK.

Iredell Co., N. C.

The Horse.

NOTES.

With the Hon. Henry C. Stuart, president; John Stewart Bryan, vice-president; H. Lee Lorraine, secretary, and Capt. John S. Ellett, treasurer; the affairs of the recently formed Virginia State Fair Association are in able hands. In addition to these gentlemen, President Stuart has selected a committee of ten, of which he himself is a member, who will get out a prospectus for the fair, obtain a charter and look after important interests of the association. The committee is made up of Henry C. Stuart, Col. John Murphy, J. T. Anderson, E. B. Sydnor, M. C. Patterson, J. G. Corley, L. O. Miller, Joseph Wallerstein, S. D. Crenshaw and M. A. Chambers.

With men of recognized ability like those named, at the helm there is a bright outlook for the new organization and the opinion prevails that we are to have a big fair here this fall; in fact, it is the purpose of the management to make it a great exposition of the agricultural, mechanical and live stock interests of the State.

The dates of the Virginia State Fair Association and those of the Richmond Horse Show Association are to be the same and the two bodies will work in unison, as really a community of interests exist between these organizations and their welfare is a matter of concern not only to officers and stockholders, but to the entire community as well. The horse show has been a source of material benefit to Richmond and that a State Fair will result likewise and attract many thousands to the city each fall, is not doubted. Both for citizens of Richmond and those from other places ample attractions will be provided with the fair, which will include racing and fine exhibitions of live stock during the day, while at night the horse show will be on. Certainly there seems in store sport and pleasure galore to be had during the Horse show and Fair week each fall, and that citizens throughout the Old Dominion will lend support and encouragement, can hardly be doubted.

Wealth, 2:10, the handsome brown son of Gambetta Wilkes, 2:19 $\frac{1}{4}$ and Magnolia, by Norfolk, will be in the stud again this season at Chapman Farm, Gordonsville, Va., and some high-class mares are being booked. Wealth was purchased by his owner, Col. W. H. Chapman, as a suckling at his dam's side, with the intention of keeping him entire and the grand looking stallion has more than realized expectations, as with size are combined good looks, finish

and a rare turn of speed. Gambetta Wilkes is one of the most prolific sires of speed this country has seen and shortly may surpass all others in point of numbers of standard performers, being already credited with 182 in the list, of which over twenty were added in 1905.

In addition, too, it may be said that both the sons and daughters of Gambetta Wilkes are breeding on and Wealth should materially swell the roll of honor.

In this issue of "The Planter," Floyd Brothers, of Bridgetown, who are the largest and best known breeders on the "Eastern Shore of Virginia," announce a strong list of trotting stallions in the stud for 1906. Their premier is Sidney Prince, 2:21 $\frac{1}{4}$, the sire of eight in the list. He is a son of the famous Sidney, 2:19 $\frac{3}{4}$, who also got Sidney Dillon, the sire of Lou Dillon, 1:58 $\frac{1}{4}$, queen of trotters. In addition to Sidney Prince, are the richly bred young stallions, Rod Oliver, Moko, Jr. and Red Dillon. So popular as a sire is Sidney Prince that last season he served over 100 mares and others were turned away, while a like state of affairs prevailed during a previous one.

The horses at Castle Hill Farm, which is near Cobham, in Albemarle county, Va., are doing well in winter quarters and Mrs. Gertrude Rives Potts, who directs affairs at that noted old homestead, thinks her stable of show ring performers are now in better shape than usual. Among those best known are the chestnut mare Firelight, qualified hunter and leader in sporting tandem, the brown mares Brilliant and Radiant, full sisters, winners in park hack and harness classes, and the "The King of Hearts," saddle horse, by General Miles. The latter made his first essay in the show rings last season and was able to win blue ribbons over the best horses shown in his class. A recent purchase is the bay mare Humid, thoroughbred daughter of imp. July and Miss Laura, whom Mrs. Potts expects much of. Rather a notable addition to Castle Hill Farm is the imported Percheron stallion Gigolo, 53844, a four-year old black horse, weighing 2100 pounds. He was a winner in France and has not been beaten in this country. Gigolo won at the Nebraska and Iowa State Fairs and will be shown this season in Virginia where classes are offered for draft stallions. With his great size this horse has style, with quite a turn of speed, and in appearance rather resembles an enormous hackney.

BROAD ROCK.

Inquirers' Column.

Enquiries should be sent to the office of **The Southern Planter**, Richmond, Va., not later than the 15th of the month for replies to appear in the next month's issue.

DIFFICULTY IN CHURNING.

Can you or any reader of your valuable paper tell me what is the trouble with my cream? I have it well turned; get it 64 degrees and churn for hours, but can get no butter. The cream gets into a perfect foam just like whipped cream, but not a sign of butter. I have tried every suggestion with no better results. Cows are fed with cut up feed (corn fodder stalk, etc.), wheat-straw, turnips, bran, plenty of salt, and are turned out on grass lots.

Any suggestion will be greatly appreciated, as I have had five churnings with no butter. Would say I have been making nice butter up to the last week.

MRS. W. C. FLAGG.

Caroline Co., Va.

There are several causes for trouble in churning like yours and it is always uncertain to determine without experiment, which is the operative one. Sometimes the trouble is caused by a cow or cows which has not been fresh for a long time or is far gone in calf. Test some of the cream from any cow of this kind, and if difficulty is found with it, exclude the cream from these cows. Sometimes the cause is the need of a different temperature in the churn. We have known it cured by raising the temperature from 5 to 10 degrees above the normal one. Sometimes, lowering the temperature is needed. Over-filling the churn is sometimes the cause, thus not allowing sufficient room for expansion and for aeration. Sometimes, though more rarely, the cause is something eaten or drunk by the cows, or a bacterial growth in the cream. Try setting the cream to ripen in another place where this bacterial germ may not be present.—Ed.

PEANUTS.

I have a piece of new, sandy land, been cultivated one year, in which I want to plant peanuts. What commercial fertilizer would suit them? Do you advise the use of lime? If so, when and how applied?

J. J. BRINSON.

Pamlico Co., N. C.

A proper fertilizer for growing peanuts may be made by mixing 300 pounds of cotton seed meal, 80 pounds of acid phosphate and 240 pounds kainit. Apply this quantity per acre. The land should have 20 bushels of lime per acre, applied as soon as plowed and worked in lightly.—Ed.

CORNING BEEF—WORMS IN SHEEP—ALFALFA.

1. Please advise me the best way of corning beef?

2. What are the symptoms of stomach worms in sheep?

3. I have a piece of land that is now seeded to crimson clover. I want to seed to alfalfa. The land is good and strong, but I have not a good stand of clover, (I think due to bad seed). I top dressed the clover in the early fall with manure. Would you advise cutting the clover and seeding in the summer, or turning the clover in, seeding in the spring

SUBSCRIBER.

Make a pickle by putting into soft water all the salt the water will completely dissolve. Boil this and skim clean, and then place in a jar or clean barrel, and, when cold, put in the beef and allow to remain for ten days or more. Then take out and hang up to dry, or cook fresh from the pickle, as desired. If thoroughly dried, the beef will keep until wanted and should be soaked 12 hours in water before cooking.

2. The skin of the sheep will appear bloodless and papery, instead of rosy and fresh looking. Sometimes, swellings will be noticed under the jaws. The sheep will be listless and sleepy looking.

3. We would plow down the crimson clover in May and keep the land worked during the summer to kill out all weeds. Apply 20 bushels of lime to the acre, after plowing and work in. In July, apply 400 pounds of bone meal, or half bone meal and half acid phosphate, per acre, and if you have some good rotten manure, apply this also, making the land rich. Then in August, when you have the land in fine order, sow 25 pounds of inoculated alfalfa seed per acre, or sow 200 pounds of soil from an old alfalfa field per acre with the alfalfa, and you should get a good stand.—Ed.

TOBACCO GROWING.

I am going to plant a small crop of tobacco this year on James River low grounds. This land is in fine condition and has not been in a hoed crop for five years. I plowed this land very deep in November, 1905. What kind of fertilizer should I use, or should I use any? How would Peruvian guano do for this land, and how much should I apply per acre.

W. D. McFALL.

We had a report some little time ago from a subscriber who used Peruvian guano on tobacco on similar land to this a year ago with excellent results. We think, however, it would be still better if some sulphate of potash was also applied. We would use 300 pounds of Peruvian guano and 100 pounds of sulphate of potash per acre.—Ed.

SHEEP—COWPEAS—ORCHARD MANAGEMENT.

(1) I have a last spring's Suffolk lamb that lays about and won't eat, and when it gets up stretches itself as far out as possible and stands that way for quite a while. Is this knotty guts or stomach worms? Give me a remedy and explain how to be used. The lamb is in good condition and seems strong.

(2) I want to sow thirty acres in peas next spring for hog and sheep pastures, what variety is best suited for that purpose and how should they be sown, with drill or broadcast, and how much to the acre?

(3) What is the best way to handle a commercial orchard of several thousand trees, apples, peach, plum and cherry. The trees, up to the present, are thrifty and well grown, and from five to eight years old. I want to know as to cultivation from now on, as to manuring and spraying.

B. E. W.

Augusta Co., Va.

(1) We doubt very much whether your lamb is suffering from any disease, other than perhaps some slight digestive derangement, probably caused by living too well.

When a sheep or other animal stretches freely on rising from rest it is usually an indication of health rather than sickness. It certainly is no indication of knotty guts or stomach worms. The indication for these pests is a anemic condition of the skin of the sheep, making it look papery and bloodless, instead of pink and fresh. The wool also looks dead. We would give the lamb the run of a pasture where he will have to hustle to get a living and stop feeding grain for a time, giving only good hay or clean bright fodder or pea vines.

(2) Either the Black or Clay pea makes a good sheep or hog pasture. The new variety, "New Era," is also an excellent pea, perhaps better for seed production than for pasture. For pasturing or for hay, sowing broadcast usually gives good results. Sow one bushel to the acre. If economy in seed is desired, it is better to drill the peas in rows, two feet six inches apart, and use about half a bushel to the acre. Cultivate two or three times and the vines will soon cover the land.

(3) Keep the cultivator running in the orchard from April to July every week or ten days to keep down weeds and encourage the growth of new wood, in July sow crimson clover, 15 lbs. to the acre, to make a winter cover crop and to plow down in the spring and supply nitrogen and humus to the soil. The object in ceasing cultivation in July is to cause cessation of growth of new wood and a ripening of that already grown. If the wood does not ripen up well or the growth is weak, apply 300 lbs. of acid phosphate and 150 lbs. muriate of potash per acre before sowing the crimson clover. In our March issue we always publish a spray calendar, giving formulas for spraying and time for doing this work.—Ed.

BURNING LIME.

What should be the cost of burning and applying oyster shells for lime where the distance to bring the shells by rail is about 30 miles? Give best plan for burning and amount of wood needed per load of shell?

Loudoin Co., Va.

SUBSCRIBER.

We should be glad if some of our readers who have had experience in burning shells for lime would reply to these queries. We have never had any experience in the matter, having always used rock lime bought from the lime kilns.—Ed.

FRUIT TREES DYING.

Please tell me why fruit trees will not do well planted on fresh land. They do not thrive, and many die. Is there anything I can do to make them grow and do well on such land?

J. P. BAUKNIGHT.

Richland Co., S. C.

The land is evidently too poor to supply the plant-food the trees need. It should be improved by being dressed with 25 bushels of lime to the acre, applied after the land has been plowed. Then later apply 300 lbs. of acid phosphate and 150 lbs. of muriate of potash per acre, and sow Cowpeas on the land, one bushel to the acre. Let these peas die down and then plow the vines in and sow 15 lbs. of Crimson Clover to the acre for a winter cover and to be plowed down in spring and again to be followed by Cowpeas.—Ed.

BUCKWHEAT.

I would like to know when is the best time to plant buckwheat in South Carolina, for bee culture. Which is the best kind and how long does it bloom?

So, Carolina.

JOHN J. BAUKNIGHT.

Buckwheat may be sown at any time from May to August. The Japanese variety is the best. It usually blooms for a couple of weeks or more. If wanted continuously through the summer and early fall, a succession of crops should be sown.—Ed.

OAT SEEDING—GRASS SEEDING—ALFALFA.

(1) I wish to sow about twenty acres in oats this spring. Kindly tell me the best kind, which is most likely to be a success; also what kind of fertilizer to use with them.

(2) What kind of grass can I sow in an apple and peach orchard this spring?

(3) What kind of grass can I sow this spring in a large park studded with very large oak and hickory trees? The trees are rather close together and consequently shade the ground entirely. I would, therefore, like to know what kind of grass will grow under the shadow of these big trees and what fertilizer to apply.

(4) Can alfalfa be sown in the spring?

Caroline Co., Va.

A. WHETRON.

1. In this issue you will find advice as to sowing spring oats.

2. Sow a mixture of tall meadow oat-grass, orchard grass and herds grass.

3. It is very doubtful if you can get a stand of any kind of grass under the dense shade of these tall trees. Probably you will most likely succeed with Virginia blue grass, orchard grass and rough stalked meadow grass sown together. We should not advise the spending of money in fertilizer in such a place, as it would likely be largely lost. Bone meal would be best to use if it is decided to go to any expense in the attempt.

4. Alfalfa may be sown in the spring, but we do not advise this course. Better spend the time up to August in working the land and making the weed seeds in it sprout and have these killed out by frequent cultivation. Weeds are the great enemy of alfalfa. Give the land a dressing of 20 bushels of lime per acre and work in during the summer; then make rich with bone meal, acid phosphate and well rotted manure and sow inoculated alfalfa seed in August. 25 lbs. to the acre.—Ed.

WARTS ON CATTLE.

Please advise me what I can use to take warts off cattle. I have two heifers with a great many on each of them, some of the warts attaining the size of walnuts.

Albemarle Co., Va.

SUBSCRIBER.

If the warts are only attached by a thin cord to the animal, take a pair of scissors and clip them off, and touch the places with caustic potash. If they cannot easily be clipped off, burn them off with caustic potash or lunar caustic.—Ed.

COWPEAS—SOWING ACID PHOSPHATE WITH INOCULATED SEED.

Is it possible to sow cowpeas by the 10th of May and cut them for hay by the middle of July? Is it true that the

acid in fertilizer will kill bacteria put on leguminous plants if sown in same drill (together)?

J. R. M. DILLARD.

If the season be a normal one, the land may be warm enough to sow cow peas by the 10th of May but they never germinate well in cold land. They will mature sufficiently to make hay in 10 or 12 weeks. Acid phosphate should never be drilled along with seed, as the acid will injure the germ and if sowed along with inoculated seed it will destroy the bacteria, which cannot flourish even in acid soil.—Ed.

COTTON PLANTING.

Can I raise cotton to any profit in James City Co., Va. What is the price of cotton seed, and where is the nearest place to get it from? Also what will a cotton press cost?

James City Co., Va.

A. C. LARSON.

Undoubtedly you can grow cotton in James City Co. It was grown much further north than this before the war, but we doubt very much whether you will find it profitable to do so, as you have no gin in your section to clean the cotton from the seed nor have you a cotton compress to bale it. The cost of press would be too high to be only used by one person on a small crop. You can undoubtedly get the seed in Norfolk. It is cheap enough.—Ed.

FERTILIZER FOR IRISH POTATOES—SUBSOILING.

(1) Will you please let me know the best fertilizer to use on Irish potatoes; also, the best potatoes to grow, and the amount to plant to the acre?

(2) Will you also let me know if it is necessary to subsoil land every year; if, not how often should it be done. Can it be well done with a shovel plow, or is it necessary to have a subsoil plow, and to what depth should it be subsoiled?

IRAD WHITLOW.

Charlotte Co., Va.

1. In this issue you will find advice as to the proper fertilizer to use in growing Irish potatoes? As to variety to plant, this is a difficult question to answer, as so much depends on the purpose for which the crop is wanted. Probably for a first early crop. Irish Cobbler, Early Ohio, Wood's Earliest, and Beauty of Hebron are amongst the best. For a late crop. Improved Peach Blow, Carman No. 3. Rural New Yorker No. 2. and Burbank are good.

2. It is not necessary to subsoil land every year. Once in three or four years is often enough. Whilst a proper subsoil plow does the best work, if you have not one a good strong Coulter with a foot welded on will do good work, or even a Coulter alone will do good. A shovel plow will not do the work in the hard subsoil.—Ed.

SHEEP FOR TIDEWATER. VA.

Please advise me which breed of sheep pays best in this part of Virginia.

Accomac Co., Va.

DORSEY F. MATTHEWS.

There are so few sheep kept through this section of the State that we have little of actual fact upon which to base an opinion. We are, however, of opinion that probably the Dorset would be found best adapted to your section. We base this opinion on the fact that the Dorsets were originally a lowland sheep bred in a county on the borders

of the ocean and having one of the mildest climates of any county in England. The principal source of profit from sheep in your section should be the early lambs for the Northern markets, and the Dorsets produce these lambs to perfection. With your mild winters you should be able to put the lambs into the Northern markets all through the winter at a very low cost for production and with a minimum of cost for shelter and feed.—Ed.

SAWDUST FOR BEDDING FOR STOCK.

Kindly advise me as to the practise of using sawdust as litter in lot and stable. What effect will the sawdust have on the land where the manure is used? I have a big pile in my yard, have filled all my stables with it; it makes very clean bedding and the animals seem to like it. I want to know what you think of it.

Edgecombe Co., N. C.

W. CASWELL SUGG.

Recent experiments made on the use of various kinds of matter for bedding for stock seem to establish the fact that sawdust makes an excellent, clean, healthful bed for the animals and a good absorbent of the liquid voidings, but the absence of plant food in the sawdust makes the manurial value of the cleanings of the stables much lower than if straw or other litter were used to take up the dung and urine of the animals. The sawdust acts merely as a vehicle for saving these, and is in itself useless as a food for the crops to which the same is applied. Its only recommendation is its cheapness and cleanliness.—Ed.

PLOWS—CALF RAISING—TOP DRESSING GRASS LAND.

(1) I wish to make improvement on the old single furrow mould-board plow, both in point of saving time and doing better work, especially as to leaving better connection between soil and subsoil. Please advise whether the numerous disc, cutaway, sulky and gang plows advertised are effective in sod and stubble land in Virginia where land is rolling and comparatively free from fast rock. Please suggest a good implement for three or four horses where about 100 acres are plowed per year, to be used in sod or turning under clover, cow peas, etc.

(2) In the beef breeds of cattle, does letting the calf run with dam continuously injure milking qualities of dam? Is it not better for the calf than to let it suck at fixed times? Considering welfare of both dam and calf, which course would you advise when the object is the production of first-class breeding animals?

(3) What is the best supplementary ration for a lot of pure bred calves, 60 to 90 days old, where dam does not give milk enough to induce rapid growth?

(4) In August, 1904, I sowed a field to rye, timothy, red top and clover. Summer, 1905, I cut a crop of mixed hay (after having grazed rye), about one ton per acre. There is now a good stand of grass and clover. Land rolling and will yield seven and a half barrels of corn or fourteen bushels of wheat. Would you advise top dressing? when, and with what? Will it pay better to spend money for commercial fertilizer to top dress or to let this stand of grass runs its course and give rotation of cow peas and grass?

(5) Please suggest a good make of bee hive and where obtainable.

Culpeper Co., Va.

A. G. P

1. We are glad to know that at least one of our farmers is giving some thought to the question of superseding the old-fashioned single furrow plow, practically itself only a

slight improvement on the first plow ever used, a crooked limb of a tree acting as a double wedge to burst out the furrow. We have long been of opinion that this plow ought to be relegated to the museum of antiquities, and have frequently so expressed ourselves. Horsepower and human labor is now too costly to waste on plowing a single furrow at a time of only the width usually turned by the common plow. We are convinced that the disc plow is the plow of the future. The principle of construction is a sound one, economical of horse power, a rolling cutting wedge rather than a simple bursting wedge. It is capable with the same power, of turning over and at the same time pulverizing a much wider and deeper furrow. We look to see further improvements in this form of plow which will make it possible with three horses to turn over two wide and deep furrows at a time and thus materially reduce the cost of breaking land. The sulky or riding plow used in the West is a great improvement on the old style of plow and does much more and better work. We are glad to know that it is being introduced here. We had a gentleman in the office a few days ago who has introduced this plow on his farm and is greatly pleased with it. We also know others using the disc plow with satisfaction. Try either of these. They should do your work at less cost and with greater efficiency.

2. Letting the calf suck the cow always injures the milking qualities of the cow whatever the breed may be, but as several of the best breeds are not milking cows at all but at best only barely able to raise their calves, this effect of suckling is not of much importance. Whilst doubtless their milking qualities might be improved by milking the cows and raising the calves by hand, yet at the best the quantity would be so small as not to be worth the additional labor. Let such cows raise their calves in the natural way; the object in keeping them is merely to raise stock to be made into beef and this end can be most cheaply attained in this way.

3. We have found the best results attained by feeding flax seed jelly made by slowly simmering whole flax seed in water and feeding this to the calves, say from a pint to a quart per day, on chopped hay, to which was added a mixed grain ration of ground oats and corn in equal parts, say a pound per day to begin with and gradually increased as they respond to the ration, taking care never to overfeed the grain so as to disarrange the digestive organs.

4. Top dress the grass this spring with 300 lbs. of bone meal or half bone meal and half acid phosphate, 100 lbs. of muriate of potash and 150 lbs. of nitrate of soda per acre, or instead, apply 400 lbs. of Peruvian guano per acre. This should give you an excellent hay crop, lengthen the life of the sod and improve the nutritive value of the grasses. A top dressing of lime, one ton to the acre, in the late fall or early winter would also help it by inducing the growth of clover and the finer grasses. Do not apply the spring top dressing until the grass commences to grow and then it will be fully utilized by the crop.

5. Write A. I. Root & Sons, Medina, O., as to bee hives. They are great bee experts, whilst we know nothing of bee keeping.—Ed.

ALFALFA.

I have a stiff red piece of land that has been run in corn for some three years, after which I decided to seed to al-

falfa. Early in the spring, I applied a heavy coat of stable manure and 1,400 lbs. of lime, and seeded to millet and peas, and inside of 90 days I reaped a heavy crop of hay; then seeded alfalfa, and got a good stand, the seed being inoculated with alfalfa bacteria and then applied 200 lbs. of alfalfa dirt. Still it didn't make much growth, and is looking yellow, as if it is going to die. Would you advise for it to be dressed with more lime and manure this spring? Halifax Co., Va. A. E. GARNER.

We are afraid you sacrificed your alfalfa stand to the millet and pea crop. If instead of sowing this crop and thus taking the fertility you had applied out of the land, you had seeded alfalfa you would likely now have had a good stand of healthy growing alfalfa. The best thing you can do now will be to give it a top dressing of well-rotted manure and bone meal, 300 lbs. of the bone to the acre, and then when it begins to revive a little give it a top dressing of 100 lbs. of nitrate of soda per acre. In this way you may save the stand, but must feed it well again in the fall with manure or bone meal or both.—Ed.

SHEEP KEEPING—TRUMPET VINE.

(1) Do you think I can make sheep a success in a small way (not having any fences) by keeping them up and feeding on the soiling plan, that is, cutting grass and carrying it to them?

(2) When sheep run over a pasture they make the land foul by filling it with worms which produce knotty gut. Can these worms be killed by dusting the dung with land plaster if the sheep are kept up?

(3) Is the trumpet vine, so common as a troublesome weed in old fields here, what is called poison ivy? Can you give me its right botanical name? Chesterfield Co., Va. H. DEWHURST.

1. No. You will never make sheep keeping profitable by feeding on the soiling system. Sheep bear confinement worse than any other animals. They must have range over a pasture to keep healthy and prolific.

2. If the sheep are free from the knotty gut worm (Esophogostoma), they will not infect the land, and if they are infected they will sooner or later succumb to the worms, for which there is no remedy. You cannot destroy the worms by dusting the dung with land plaster or anything else. Keep sheep off the land for twelve months and there will be no worms left to trouble and infect another flock. They cannot perpetuate their existence without sheep in which to work out their life cycle.

3. No. The trumpet vine and poison ivy are two different plants. The trumpet vine is "Bignonia radicans" botanically.—Ed.

PLANTING APPLE TREES.

What is your idea about setting a young apple tree where an old one has been dug out? It seems to me if the hole was left open all winter to freeze and the brush from the tree burned on the spot before re-setting, enough potash would be supplied for the young tree. Have several non-productive trees and want to take up and fill the places with others. ENQUIRER.

Augusta Co., Va.

The land where the old apple trees have grown ought to be cultivated in some other crop for a year or two and be well enriched with acid phosphate and potash before replanting apples again. The old trees will have largely exhausted the fertility of the land and merely freezing the soil

and burning the old trees on the land will not restore this. Break the land deeply and give a dressing of lime on the top, harrow lightly and let lay for a month or two and then apply the above fertilizer and sow peas or some other leguminous crop to be plowed down and thus restore humus and nitrogen to the soil.—Ed.

COW PEAS.

I have five acres river land, a part of which is sandy, balance loamy, which I want to seed to black peas for hay crop. Will you kindly inform me in your next issue what is the best brand of fertilizer to use, and name the best variety of seed and proper time to seed? I have also about two acres of clay land I want to sow in peas for seed. would you sow broadcast or drill them? How many peas can be produced to an acre of good clay land, and what is the usual cost of gathering? Your valuable paper shall always belong to my household. Wishing you a prosperous New Year.

SUBSCRIBER.

Nelson Co., Va.

Use no fertilizer but acid phosphate. Apply 300 or 400 pounds to the acre. Whilst the common black pea or the clay pea gives good results usually for hay, yet the new variety—the "New Era"—is giving much better results wherever tried. Sow after the land has gotten warm, in May or June.

For seed, plant the New Era pea in rows 2 ft. 6 in. apart in the row and use about a peck and a half of seed per acre. Cultivate two or three times. The yield of seed varies from 10 to 20 bushels to the acre—15 bushels is about an average crop. The cost of gathering is too great with the present cost of labor. They used to be gathered usually on shares by the colored women and children, but these cannot now be had in most places and they are unsatisfactory at best, as requiring constant supervision. The best way to gather the peas is to cut with a reaper or mower and make into hay and then thresh out with a wheat separator in winter after they have gone through a sweat in the mow. The separator should be run slowly and plenty of room be given around the drum to allow the peas to pass through easily, taking out part of the concaves so as not to beat them too hard, or the peas will be much broken.—Ed.

JOHNSON GRASS.

When and how should the "Johnson" grass be sown, how much seed to the acre? Will it grow on thin gray soil? I have heard it is a pest. Is it so? I would like to know if it is more of a pest than broom sedge. What kind of hay does it make and how much per acre?

L. H. GOSS.

Albemarle Co., Va.

Johnson grass should be sown in May or June, half a bushel to the acre broadcast. It will grow on almost any kind of soil. In some sections of the South it is regarded as a pest and its growth is discouraged, but it is much more valuable as a hay grass than broom sedge. If not allowed to seed, it will not become a pest in a neighborhood, and in this State need never become a pest, as it can be killed out by winter plowing. It makes a fair hay, cut before it seeds when in bloom, and gives a heavy crop.—Ed.

DISEASE OF COW-LIME.

1. I recently lost a fine registered Jersey Heifer. She

was taken sick on December 22nd and died on the 27th. She was taken with a running off at the bowels and got worse and worse every day until she died. At the last, nothing came from her but mucus and blood. Looked like a chill with hard case of Dysentery or Diarrhoea. What is the disease and what is the treatment, and is it infectious? The Heifer had been well fed and cared for and was in fine condition when taken sick.

2. I live five miles from railroad depot and I wish to use lime on my land. Will it pay me to buy lime and pay freight and haul it this far? If so, where can I buy it the cheapest, and what will it cost. Can I buy it in sacks, or would I have to buy it loose in car?

L. C. GILES.

Pittsylvania Co., Va.

We think the Heifer died from a severe attack of Diarrhoea possibly brought on by a chill, as you suggest, or may be from something she had eaten. The course of the disease was too rapid for Dysentery, which usually runs its course very slowly. In cases of Diarrhoea, the best remedy, usually, is to give a pint of castor or linseed oil as soon as the disease manifests itself, and this frequently ends the trouble. If not, and the discharges continue, mix powdered galls 6 ounces and powdered gentian 2 ounces and divide into 12 powders. Give one powder three times a day until the passages present a natural appearance. The powders should be mixed in half a pint of whiskey and a pint of water. We do not think you need fear any infection from the case you have had.

2. If you can buy and have the lime delivered at your depot at \$4.00 per ton, it will pay you to use it. Mr. T. O. Sandy, of Burkville, will very probably be able to give you a good rate on lime at your depot.—Ed.

ANSWERING QUESTIONS.—FERTILIZING CORN.

1. Do you object to answering questions by mail if postage is always enclosed for the answer?

2. In planting corn, does it pay to drop fertilizer with it? If so, what is the best kind to use, and what amount per acre?

3. In manuring land to be put in corn this spring, how is the best way to apply manure to get the best results—put it on before the land is plowed so it can be plowed under, or apply it after the ground has been plowed and work it into the soil with the harrows? Some people put it on after the corn is planted with excellent results.

4. Which will give best results, to follow lime with manure or manure with lime, or does it make any difference? How long after one is applied should the other follow to get the best results?

Loudoun Co., Va.

LEESBURG.

1. We answer hundreds of queries by mail every year, but the limitations of time and other duties make it impossible to answer all, and besides, we want to make this column useful to all our subscribers and not merely to one person.

2. We are not in favor of dropping fertilizer in the hill with corn. Practically, such a system does not give the best results. Corn is a very strong growing plant with a widely ramifying root system, and to put the fertilizer merely just where the seed is dropped is to encourage the plant to merely seek its food just around the stalk, where not half the food it needs can be put with safety to the germ of the grain. The roots of a corn plant will, by the time it is ready to be worked the second or third time, have extended half way across the land between the rows, if the soil

is in a finely worked condition, and the plant will be taking its food from all this area, using the natural fertilizer in the soil. We have repeatedly made the assertion, and it is founded on experiments made in nearly every state in the country, that commercial fertilizers can rarely be made to pay on corn crops. They may, and often do, increase the yield, but rarely at a profit. Barn yard manure applied on a sod is practically the only fertilizer which results in profit in corn growing. If commercial fertilizer is used, phosphoric acid is what is most needed on all lands east of the Blue Ridge. In all experiments made in this State, this has been found to be the controlling factor in the results. West of the Blue Ridge, potash has been found useful in many cases. Some nitrogen may be often found useful in starting the crop, but it is becoming more certain every day that corn can, as a rule, get all the nitrogen it needs from the soil when once a good start is secured. Whilst it is not yet determined how it gets this nitrogen, yet we believe it will yet be demonstrated that the corn crop is a nitrogen gathering crop through microbic action. As a fertilizer for a corn crop, if one is decided to be used, apply from 300 to 500 pounds of acid phosphate per acre, broadcast, before planting the corn, and then give a top dressing of 100 pounds of nitrate of soda per acre, after the crop has commenced to grow. Where potash is needed, as in the section mentioned, we would use 100 pounds of muriate of potash per acre along with the acid phosphate.

3. Apply the fertilizer broadcast after the land is plowed, and work in with the harrow. Intercultural fertilization of the crop—this is, applying the fertilizer at intervals during the growth of the crop—is found on some lands to be advantageous. These lands are usually thin, poor lands, where the crop needs continuous new supplies of food to maintain its growth, there being nothing much in the land to help it.

4. Lime should be applied on land in the winter or early spring, immediately after it is plowed, and should be harrowed in lightly. Used in this way, it at once commences to ameliorate the physical and mechanical condition of the soil and put it into a condition wherein it can usefully assimilate manure and other fertilizers. Manure can be applied to the land without fear of loss of any of its fertilizing ingredients from the action of the lime, in two or three weeks after the lime has been applied.—Ed.

NITRATE OF SODA. RED POLL CATTLE. SHEEP.

1. How is the best way to sow nitrate of soda broadcast?
2. Where could I purchase Red Poll Heifer and Bull Calves at weaning time to raise?
3. What breed of sheep would you suggest for this county—Howard County, Md.?

T. R. PEDDICORD.

Howard Co., Md.

1. We have always sown nitrate of soda by hand broadcast, like sowing wheat broadcast. It is not so caustic as to hurt the hands, though it is well to have a leather glove on the hand where much has to be sown. If the quantity to be applied per acre is less than 100 pounds, we would mix some soil with it to make it easier to cover the whole area.

2. You will find Red Polls advertised in this issue of The Planter.

3. We think the Shropshires are the best sheep to keep in the South, as they acclimatise quicker than any other breed and maintain their size and other good qualities more certainly. If very early lambs are the object, Dorsets are the best. They are doing well in many sections of the South.—Ed.

SAN JOSE SCALE.

Will you please let me know what is the best remedy to use for San Jose Scale? Also, if lime and sulphur are as effectual without salt as with it, and why the lime and sulphur solution has to be kept hot while spraying?

G. H. TRUMBO.

Warren Co., Va.

The lime, sulphur and salt solution is the most effective remedy, and is practically a certain one, if used as advised by the Virginia Experiment Station. We presume the necessity for keeping it hot is keep the ingredients in solution, as they are apt to separate when cold.—Ed.

HOG RAISING.

Please publish an article on hog raising, from the sow to the slaughter pen, discussing 1st, the care of the sow and her pigs. 2nd, What to plant for them to eat and how to feed intelligently with the grazing.

3. Can two crops of peas, maturing at different dates, be raised under the same fence? Will the hog turned on the crop maturing first damage the later crop perceptibly?

4. If there are two crops, maturing at different dates, that one could grow, on which the hogs could feed on one and not damage the other—for instance, say, rye for spring feed and peas later—would they damage the pea crop before maturing?

E. A. ESTES.

1. Want of space in this issue prevents our dealing with the question of the breeding and raising of pigs, but we will take an early opportunity of writing an article on the subject.

2. In this issue will be found an article from Professor Soule of the Virginia Experiment Station, making suggestions for a series of hog pasture plots and the feeding of grain with the pastureage, to which we refer the Enquirer.

3. No. The hogs in grazing the first crop will so damage the second crop as to practically make it useless. Sometimes a good stand of crimson clover can be secured when sown in a cowpea crop in July, which will make good, full grazing for the hogs, after the peas. The hogs should be taken off the peas as soon as they have practically consumed the greater part of the crop, and thus give the clover a fair chance of growth before being grazed.

4. Yes. The hogs would damage the peas seriously, and make the growth so small as to be of little value. Peas should never be grazed too early or their feed value will be greatly reduced. The pods on the peas should be well set and partly matured before turning on the hogs, to secure the best results. Rye might be grazed early and then the stubble be turned down and peas be sown for a second crop.—Ed.

"Canada has passed an order prohibiting the importation of hogs from the United States, principally to preserve the quality of Canadian bacon, and the high reputation which it enjoys in Great Britain," says Live Stock Journal (England), January 5, 1906. The large White Yorkshire is the brand chiefly used for bacon making in Canada.

Miscellaneous.

VIRGINIA STATE FARMERS' INSTITUTE.

MEETING OF EXECUTIVE COMMITTEE.

The Executive Committee of the Virginia State Farmers' Institute met at the Agricultural College, Blacksburg, on the 16th of January, with the following members present:

Ex-Gov. J. Hoge Tyler, East Radford.

T. O. Sandy, Burkeville.

W. W. Bentley, Pulaski.

J. R. K. Bell, Pulaski.

Frank Bell, Dublin.

James A. Otey, Blacksburg.

A. Black, Blacksburg.

R. G. Koiner, Staunton.

T. W. Evans, Concord Depot.

J. L. Eakin, Blacksburg.

J. L. Moomaw, Cloverdale.

J. F. Jackson, Richmond.

M. F. Slusser, Blacksburg.

W. O. Frith, Blacksburg.

H. L. David, Troutville.

Andrew M. Soule, Blacksburg.

A number of other members of the Committee were unfortunately prevented from being present on account of business engagements elsewhere. These gentlemen expressed their appreciation of the work this Institution was doing in the most emphatic manner and sent the heartiest expressions of approval to the Secretary to be delivered to the members of the Committee with reference to the efforts being made to secure proper facilities for equipping the College of Agriculture and expanding the work of the Agricultural Experiment Station so as to make it truly useful to all the agricultural interests of Virginia. Among the members sending greetings were Messrs. Joseph Wilmer, Rapidan; Joseph Bryan, Eagle Point; Joseph R. Anderson, Lee; C. N. Stacy, Amelia; Robert Craig, Bristol; Jese Whitley, Indika; J. W. Flood, Appomattox; John T. Cowan, Cowan's Mills; John R. Guerrant, Galloway; George M. Muse Salem; T. E. Nininger, Troutville; S. C. Coggin, Rustburg; J. F. Buchanan, Glade Springs.

The meeting was called to order by ex-Gov. J. Hoge Tyler, Prof. Andrew M. Soule acting in the capacity of secretary. The first business considered was the preparation of the program for the next annual meeting. A number of valuable suggestions were made to the secretary, and he was instructed to

try and secure the services of some of the most eminent men in this country. Among the names suggested were those of Mr. Hale, the well known fruit man; Mr. Harris, the noted Hereford breeder; ex-Governor Hoard of Wisconsin; Assistant Secretary Hays, and Prof. Thomas Shaw, of Minnesota. The secretary stated that the annual report was now in press, and but for the printers' strike would have been ready for distribution sometime ago.

The place for holding the next annual meeting was considered. There were two applications before the Committee—one from Roanoke and one from Staunton. Mr. R. G. Koiner, the Staunton representative, was present on behalf of his people and made a very strong appeal to the association. Owing to the fact that the rival claims of the two cities could not be decided without further consultation with various interested parties, a committee was appointed consisting of Ex-Gov. Tyler and Prof. Soule. The committee will take action at an early date.

The committee next considered the work of the Agricultural College and State Experiment Station located at this place. The work was fully explained to them by Prof. Soule. He showed that in the matter of distributing inoculating material the Station had saved the farmers some \$6,500.00 for an expenditure of \$150.00 for the maintenance of the Department of Bacteriology, exclusive, of course, of the salary of the professor in charge. It was also shown that \$400.00 only were being spent by the Station for the promotion of the great horticultural interests of Virginia. Furthermore, that the College farm was, in a large measure, self-sustaining, though conducting very important experiments on an extensive scale; that the Plat Department was only receiving something like \$1,500.00 a year, though it was engaged in breeding and developing improved strains of different varieties of cereals and grains for distribution to the farmers of the State, while in many other States as much as \$5,000.00 and \$6,000.00 was being spent for this purpose alone. It was also brought out that North Carolina had just completed and equipped an agricultural building at a cost of more than \$100,000.00; that Georgia had a bill before its Legislature for a similar amount for the erection of an agricultural building; that many Southern Experiments Stations received large sums of money for the development of their work in addition to the appropriation from the Federal Government; and, while all this is true, there are about 100 students in

the Virginia College of Agriculture with 14 men in the senior class this year, and the Experiment Station is conducting a variety of investigations of the most vital importance to Virginia agriculture at a much smaller cost, relatively, than many of the stations located in other Southern States.

At the last annual meeting in Roanoke, the work of the Station and College was unanimously endorsed by more than 500 farmers who were present at that meeting. The farmers of the State seem to have come to a true appreciation of the value of agricultural education and the need of expanding the work of the Station in order that many problems which concern them intimately may be investigated at an early date. It was shown, very conclusively that the work of the Station had been effective in the last year, saving the State much more than it cost. In appropriating \$10,000.00 a year additional for its maintenance and support the State would simply be acting as a loan agent to the Station.

The question of agricultural education in all its phases was discussed, and it was the unanimous opinion that at least \$50,000.00 would be needed to complete the agricultural building, and that only a moderate equipment would be provided for the sum of \$25,000.00. After a full discussion of the matter, the following resolution was unanimously adopted:

Resolved, That in the opinion of the Executive Committee of Virginia State Farmers' Institute, the present Legislature should be petitioned for \$75,000 to complete and equip the agricultural building at Blacksburg, and for \$10,000.00 a year additional for the maintenance and support of the Experiment Station.

At this juncture, the Executive Committee of the Board of Visitors of the Virginia Polytechnic Institute informed the Committee that they were ready to hear their report on the needs of the agricultural department; the conference with the Board of Visitors having been previously arranged for this day and date. They listened attentively to the reading of the foregoing resolution and to its discussion by the various members present. The need of the appropriation and the strong sentiment in favor of developing the agricultural department were ably presented to the Executive Committee of the Board by ex-Gov. Tyler, J. F. Jackson, T. O. Sandy and others. The Board expressed their high appreciation of the efforts being made to develop the agricultural department and assured the Committee of their interest and sympathy in the work, and of their desire to work in co-operation with them for the promotion of the best interests of the department concerned.

Harmonious relations were thus firmly established, and the Executive Committee of the State Farmers' Institute appointed the following gentlemen to co-operate with the Board of Visitors and visit Richmond in the interest of the afore-mentioned appropriation at a suitable date to be determined on later: ex-Gov. J. Hoge Tyler, T. O. Sandy, J. F. Jackson, editor of the Southern Planter; Jos. Wilmer, and Andrew M. Soule, Director of the Experiment Station.

The following resolution was then presented by Major W. W. Bentley, and unanimously passed:

Resolved, That the members of Congress for the State of Virginia be requested to support and urge the passage of such a modification of the tariff laws of this country as will result in the renewal of reciprocal trade relations with Germany and other European countries.

The secretary was also instructed by unanimous resolution to urge the Virginia delegation in Congress to support the resolution now before that body asking the Federal Government to increase the amount of money now appropriated to the State Stations.

There being no other business to come before the Association, adjournment was taken, subject to the call of the President.

Blacksburg, Va., Jan 16, 1906.

We most earnestly repeat our suggestion of last month that every farmer in the State of Virginia constitute himself a committee of one to urge upon his Senator and representative in the Legislature the absolute necessity for making the appropriations asked for in aid of the development of the agricultural work of the Agricultural and Mechanical College, and of the Experiment Station of the State. The Agricultural building is about half built and at a standstill for want of money to complete it. The agricultural students have neither class rooms nor laboratories in which to pursue their studies, and cannot have until this building is completed and equipped, and the Experiment Station is crippled in its work for want of money to carry out much needed experimental work. Under the able guidance of Prof. Soule, this Station has taken on new life, and with proper support will soon take rank with the first Stations in the country. Prof. Soule is full of enthusiasm for his work and has rallied the farmers to his side. Give him the means to effectually carry on his work and every farmer in the State will soon realize that the College and Station are a power for good in the State.

The State can afford to give the money; nay, it cannot afford not to do so! The farmers are the

largest tax-payers and have the strongest claims to have their needs recognized in the way of facilities for the education of their sons as scientific farmers. The "rule of thumb" farmer is now out of date. See that your Senator and Representative understand this, and that you count on them to help you. —Ed.

AT THE INTERNATIONAL SHOW, CHICAGO.

Editor Southern Planter:

As I had occasion to visit Mr. O. H. Swigart, of Ill., (near Chicago), to buy some registered Galloway cattle, I planned the time so that I might see something of the International Stock Show. This is the greatest live stock show in the world and is held annually at Chicago. There you see the greatest living individuals of the different breeds of horses, sheep, and cattle, also a fine display of fat barrows, in the hog department.

The first thing that struck one in the cattle barns, was the fact that all five breeds shown, (Shorthorn, Hereford, Angus, Galloway and Red Poll), were good, any one of them good enough to please any lover of good cattle.

The Angus men were there in all their glory. It would be hard to dream of cattle more perfect, and more beautifully fitted; and in the carlots, the shiny blacks were above criticism. Out of perhaps a dozen of more carloads, there was not an animal that was not a good one. There were three carloads of these cattle, that were so perfect, that they might have been moulded instead of grown.

The grand champion steer of the show was an Angus, and a good one, but he had plenty of good company.

The Herefords were a close second to the Angus in this show, both in the breed classes, and carlot exhibit. In fact, the Herefords won more prizes in the carlot competition than any of the other breeds. No one could walk down the aisles and look over this collection and say that the Herefords were not a wonderfully fine breed of cattle.

The Shorthorns made a woefully poor show, for so fine a breed of cattle. While some of the best animals of the show were among this breed, yet the Shorthorn men had more trash there than all other breeds combined. Also in the carlots, most of the trash were of this breed.

It is a wonder that these breeders would do their cattle such injustice. The Shorthorn breeders are a queer lot anyway, as witness their fads for color and

rules, barring out some of the best British Shorthorns from the American herd book.

The Red Polls had some nice cattle, but some trash could be seen in their ranks. The weakness of these cattle as a beef breed, seems to be in lumping their fat too much. Some of the cows had fine udders, and they were my favorites of this breed.

As a Galloway man, I was much pleased at the fine show this breed made. A good straight lot with little or no trash. The shaggy coats add to their looks and some of the Angus men curl their animals hair in imitation of their cousins.

The display of sheep and hogs alone, here, was worth a trip to Chicago. The Shropshires had the strongest showing, in numbers, but for real quality and beauty, there was one pen of Southdowns that in my opinion topped the whole lot. The Berkshires and Poland Chinas were more numerous than other breeds in the barrow show. I rather thought the Berkshires put up the best showing of anything there, taking them straight through. All the breeds of hogs, though, made a good showing. This show is well worth seeing, and all stockmen should try to attend, as it only means one trip a year, and that a most profitable one to the stockman.

N. S. HOPKINS.

Gloucester Co., Va.

CORN YIELDS.

For three years, beginning with 1892, my average corn yields were between 120 and 150 bushels per acre. I cannot give the exact figures. For the last ten years the yields, measured in the field at husking time, have averaged 127 bushels per acre. The highest average yield was in 1896, when I secured 171 bushels and the lowest in 1898, when the crop was damaged by hail and the average yield was only 86 bushels. The variety is a yellow dent with Leaming strain, the result of 13 years' selection. My soil is an upland limestone and seven, two-horse loads of barnyard manure are applied per acre. The ground is plowed in the spring from 8 to 10 inches deep and shallow culture is given during the summer. The area cultivated is from 13 to 14½ acres.—C. M. Leiter, Washington County, Md.

E. H. Goodwin, whose place is near Manassas, Prince William county, Va., has sold to Vice-President Fairbanks, of Washington, a pair of very handsome roadsters, the price being reported as \$1,000

THE Southern Planter

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THE SOUTHERN PLANTER PUBLISHING CO.,

RICHMOND, VA.

ISSUED ON 1ST OF EACH MONTH.

J. F. JACKSON,

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B. MORGAN SHEPHERD,
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CHICAGO, ILL.

ADVERTISING RATES

will be furnished on application.

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NO ANONYMOUS communications or enquiries will receive attention.

Address THE SOUTHERN PLANTER,
RICHMOND, VA.

ENTERED AT THE POST-OFFICE AT RICHMOND, VA., AS SECOND-CLASS MATTER.

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PUBLISHER'S NOTES.

To Advertisers.

Be sure to send in your copy or instructions on or before the 25th of the month for the following month's issue. This is imperative.

NEW SUBSCRIPTIONS.

We have reserved a supply of our January issue with which to start new subscriptions. We suggest, however, that those wishing to begin with this number, send in their orders at once. The supply is limited and the demand is quite brisk.

EXPANSION OF SOUTHERN TRADE.

The wonderful Industrial progress made by the South in the year just closed, is emphasized by the fact that the Southland leads all the rest of the country in the proportion of banks established, as shown by recent reports of the United States Treasury Department.

Promoters of such enterprises never locate in an unprosperous, unprogressive community. That fact in itself is a recognition of the progress being made in all industrial lines, and the development of these industries, vast though they have been, are in a measure small, as compared with what could have been accomplished if the means were at hand of giving the proper sort of publicity to the various enterprises. The latter need has demonstrated to one of the largest general advertising agencies the importance of maintaining a thoroughly equipped office on the ground.

Nelson, Chesman & Co., of St. Louis, General Newspaper and Magazine Advertising Agents, have established a branch office at Chattanooga, Tenn., and will do a general newspaper and magazine advertising business throughout the South. In these days of rapid-fire service distance counts immensely, and the location selected for this latest branch of the Chesman Agency not only facilitates the work of securing desirable contracts but also insures quick and unusually efficient distribution of copy for customers in distant parts of the country.

Nelson Chesman & Co. is one of the oldest firms of General Newspaper and Magazine Advertising Agents in

Wood's Seeds.

Second Crop Seed Potatoes

go further in planting than other Seed Potatoes, yield better and more uniform crops, and are in high favor with truckers and potato growers wherever planted.

Our stocks are of superior quality, uniform in size, and sent out in full-size barrels.

Write for prices, and Wood's 1906 Seed Book, giving full and interesting information about Seed Potatoes.

T.W. Wood & Sons, Seedsmen,
RICHMOND, - - VIRGINIA.

We carry the largest stock of Potatoes in the South. Maine, Northern-grown and Second Crop Seed.

Write for prices.

The Year Round

SPLIT HICKORY BUCKIES give satisfaction all the year. Because they're good all through. Genuine Split Hickory, the biggest buggy bargain of the year. 30 Days Free Trial. 3 year direct steel-clad guarantee. Write and tell us what style vehicle you will want. 1906 Catalog—100 styles—now ready. Free. Send for copy now.

The Ohio Carriage Mfg. Co.
H.C. Phelps, Pres.
Station 286
Cincinnati
Ohio

\$35



WALLACE B. CRUMB



CLEAN SAFE DURABLE AND COMFORTABLE

WALLACE B. CRUMB FORESTVILLE, CONN.
P.O. BOX 434

BANK OF RICHMOND,

Main and Tenth Streets.

CAPITAL AND PROFITS, - - - \$1,134,938.14.

Special attention paid to out-of-town accounts. Correspondence invited.

Three per cent. interest allowed in Savings Department,

Compounded semi-annually.

You Can Judge.

We'll send the Mill—
—we're not afraid.
You try its speed,
its strength, the
kind of grinding,
Compare with others. No
sale and no cost to you if you are not
pleased with the

New Holland FEED MILL.

The low priced mill that does every kind of corn and grain grinding, coarse or fine. Makes excellent table meal. A rapid grinder and is strong and easy running. Several styles and sizes. With or without elevator and bagger. We also have the best and fastest cutting Wood Saw made. Send for free booklets.
New Holland Mch. Co., Box 153, New Holland, Pa.

TRY THIS MILL

10 Days Free.

I will send you my reasonable
sample of one of

DITTO'S

Latest Double Cut,
Triple-Geared
Ball-Bearing

Feed Grinders

On Ten Days Trial—No Money in Advance

If it grinds at least ten more times as fast as any other two horse sweep mill made, and it back of no expense. Don't miss this offer. Refusing the offer, only let it go. Light draft. Grinds grain never found elsewhere. Try for 10 days. Both grinders complete, self-running. Ask for New Catalogue.
G. M. Ditto, Box 44 Joliet, Ill.

Try It Before You Buy It

If it don't suit, return it. We'll pay freight.

Quaker City

MILLS

are sold on above proposition. Reduced price this year. 40 years on the market. 8 sizes. Ball bearing. Grinds ear corn and small grain. Send for free catalog.

The A. W. Straub Co., 2737 Filbert St., Phila., Pa.
47-49 Canal St., Chicago, Ill.



SCIENTIFIC
RECOGNIZED EVERYWHERE AS THE BEST
POWER FEED MILLS
in earth. Write us for
FREE 40-page Catalog
and C. Showing fifty
styles and sizes.
THE FOOS MFG. CO., Springfield, Ohio

WANTED

SECOND HAND BAGS

ANY KIND—ANY QUANTITY—ANY WHERE,
I Pay Freight. Write for Prices.
GEO. T. KING, Richmond, Va.

the business. Their main office is at St. Louis, with Mr. Conrad Budke in charge, where Mr. Nelson Chesman gives his undivided attention to a vast volume of business, as well as in Chicago, where Mr. Arthur A. Willson, the remaining member of the corporation, handles a line of advertising, greater in all probability than the total output of many prominent advertising agencies.

GOOD BECAUSE IT DOES GOOD.

That is the brief, but significant, comment made in a recent testimonial about Kendall's Spavin Cure. The writer of it put much in little. He expressed no new ideas; he did not concern himself with the way, the how, or the why, but he put in expressive form the great fact that is testified to by so many thousands of people, namely: That Kendall's Spavin Cure is the standard dependable remedy for the common ailments of horses.

The common ailments of horses are not many. But while few, they are liable to come at any time. The best kept horses and the ones with least care are alike subject to these common ailments among which might be mentioned spavins, ring-bone, lameness, splints and curbs. It is a happy circumstance that these ailments on all horse flesh, no matter in what country, require no variation in the treatment. And it is also a happy circumstance for horse owners that they may have always at hand so inexpensive and so dependable a remedy for just these characteristic ailments as is Kendall's Spavin Cure. Even the most stubborn cases yield to it. It is to be had at any drug store.

Philo, Washington Co., Md.,

Sept. 15, 1901.

Dr. S. A. Tuttle,

Dear Sir: Your medicine, sent me about three weeks ago, came all right. You asked me to write you after using the Family Elixir on myself two weeks.

In reply it affords me such pleasure to inform you that I am much improved, in so short a time. My first injury was to the spinal nerve across the right kidney, in August, 1856. Then in August, 1890, I met with another accident, having my arm, finger and ribs broken, and being other wise injured. I feel rejoiced in making such an improvement in so short a time, after spending hundreds of dollars for medical aid, besides being informed that my case was incurable. I am using the medicine both internally and externally, according to your directions. In short, I am beginning to feel natural, like I did in my boyhood days.

I have also used your medicine according to directions, on my animal for fistula, about which I have written you. The fistula is about gone. I shall write you again in the course of two weeks. Yours, with gratitude,

D. M. STONER.

The Dairy Problem Solved, and Solved Rightly.

Since man first began to milk cows, the problem of how to make the most dollars from them has been up for solving. After centuries of experimenting the way has been discovered.

An Easy Running Empire Cream Separator



will get these dollars for the cow-owner, and will get them all. This is no experiment, it is an actual fact proven by years of experience by farmers the country over.

You want to know why; we want to tell you why. Write, and get our free books on dairying. Read these; then investigate the Empire. The result can only be one thing, a complete proof that our statements are true.
Empire Cream Separator Co., Bloomfield, N. J.
Creamery Churn Mfrs., Agents, Louisville, Ky.

TUBULAR Starts Fortune

If you had a gold mine would you waste half the gold? Dairies are **surer than gold mines**, yet farmers without separators only half skim their milk. Tubular butter is worth 25 to 35 cents. Cream is worth one cent fed to stock. **Are you wasting cream?**

Sharple's TUBULAR CREAM SEPARATORS

Like a Crowbar

Tubulars are regular crowbars—get right under the trouble. Get the cream—raise the quantity of butter—start a fortune for the owner. Write for catalog U-290

THE SHARPLES SEPARATOR CO.
WEST CHESTER, PA. CHICAGO, ILL.
TORONTO, CAN.

BEATS THE

Grindstone

Ten Times Over.

Grind any tool, knife to mower sickle, with this

Practical Grinder.

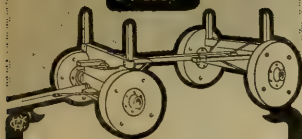
3,000 revolutions of carbide wheel per minute. Greatest abrasive known. No pressure needed, does not draw temper or heat tools. Every home necessity. Write for price and circular. A few good agents wanted.

ROYAL MFG. CO., 35 E. Walnut St., Lancaster, Pa.



**PRUSSIAN
COUGH & DISTEMPER CURE**
Cures Cough, Distemper, all Throat and Lung Trouble. Purifies the blood. Pairs the system in condition. See Prussian Remedy Co., St. Paul, Minn.

HANDIEST THING ON THE FARM



A FARMER'S HANDY WAGON

WOOD OR STEEL WHEELS

Is the handiest thing on the farm, because it is the one wagon for every farm purpose; because it does work no other sort of a wagon is suitable for; makes work lighter for horse and man; loads and unloads easier than the high-wheel wagon; runs lighter over any kind of ground; wears longer and sells at a reasonable price. Sold by dealers everywhere. 48 page catalog tells the whole wagon story. Send direct to us for a copy—you will be interested in the story.

FARMER'S HANDY WAGON CO., Saginaw, Mich.

Branches: Kansas City and Des Moines.
Also makers of Farmers Handy Hay and Truck Racks
and Handy All Steel Frame Bikes. Catalogs free

MADE IN SAGINAW



No. 331, Canopy Top Surrey. Price complete, \$65.50. As good as sells for \$25.00 more.

33 Years Selling Direct

Our vehicles and harness have been sold direct from our factory to user for a third of a century. We ship for examination and approval and guarantee safe delivery. You are out nothing if not satisfied as to style, quality and price. We are the largest manufacturers in the world selling to the consumer exclusively. We make 300 styles of Vehicles, 65 styles of Harness. Send for large free catalog.

ELKHART CARRIAGE & HARNESS MFG. CO., ELKHART, IND.



No. 10, Single Collar and Hame Harness. Price complete, \$18.00. As good as sells from \$5.00 to \$8.00 more.

75c PAINT BOOK FREE

I have made at great expense a big, handsome paint book, the finest ever printed. It tells all about my Made-to-Order Paint—Best in the world. Book has large double pages of color samples, great variety of tints. Get the book; it's Free. Write today.

O. L. Chase The Paint Man St. Louis, Mo.

AMERICAN WIRE FENCE.

There are many kinds of wire fence, but the requisites are first, that it shall be strong to hold up against and withstand all extreme strains, give then flexibility, to take all ordinary shocks, give and come back to its original shape, so as not to stay sagged or bent.

These two very important qualities are found in the superlative degree in fence made by the American Steel & Wire Co.. Their fences are not only constructed from extra long fibre steel wire, strong and flexible, but this is galvanized heavily to protect it from the weather and prevent rusting out.

This concern operates thirty big plants and all make every known kind of wire, from the stiffest, required in piano manufacture, to the finest—almost silky—fibre which is woven into wire cloth. With such extensive facilities, and opportunity to observe their products under all sorts of conditions, it is not surprising that they should be able to produce wire surpassing in quality all other kinds.

And the enormous quantity they make enables them to reduce the cost to a point where they can sell the very best wire at prices very much lower than other concerns have to ask.

Steel is the very best material for fences because it is the strongest substance made. Its invention and development have made possible modern skyscraper buildings, bridges of hitherto impossible length and height, and transportation in trains and steamships to which you trust yourself with every confidence in their strength and capacity to insure your perfect safety.

Hence it is the safest and most reliable material for fence. And, if it is properly galvanized and woven and put up as it should be, it will last for many years and give your land permanent protection.

American fence—fence made by the American Steel & Wire Co.—is so constructed that you can adjust it to any unevenness in your ground and maintain uniformity throughout. It's lateral wires are big, continuous pieces, very tough and durable; while the upright, or stay wires, are hinged upon the lateral wires so that there can be no giving way. This makes a perfect square mesh fence.

American fence wire is annealed as it is drawn, which makes it stronger than ordinary fence wire. American fence is sold through dealers to give buyers the benefit of personal attention; but, if your dealer does not keep it, put off buying until you can write the makers and get a catalogue. That will enable them to see that your interests are properly looked after.

Address the American Steel & Wire Co., at any of their branch headquarters—Chicago, New York, Denver or San Francisco.

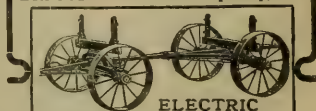
YOU Can Save a Lot of Money! Can Save a Lot of Money! Can Increase Your Comforts! Can Increase Your Profits!



If you are interested in those things we'd like to send you our new book about **ELECTRIC STEEL Wheels** and the **ELECTRIC Handy Wagon**

More than a million and a quarter of them are in use and several hundred thousand farmers say that they are the best investment they ever made. They'll save you more money, more work, give better service and greater satisfaction than any other metal wheel made—because **They're Made Better**. By every test they are the best. Spokes united to the hub. If they work loose, your money back. Don't buy wheels nor wagon until you read our book. It may save you many dollars and it's free.

ELECTRIC WHEEL CO.,
Box 146 Quincy, Ills.



ELECTRIC

SPLIT HICKORY

Trade Mark
Stands for quality.
Costs no more. Don't
buy the unknown kind.

From our
Factory to you.

SPLIT HICKORY SPECIAL

Everything of the best and made to order.
30 Days Free Trial. 2 years steel-clad
dirt guarantee. Write and tell us the
style of vehicle you need. 196 Cat-
alogue, 189 pages, now ready. Write
for it today. It's free.

The Ohio Carriage Mfg. Co.
H. C. Phelps, Pres.
Stations 24
Cincinnati, Ohio.

\$50



WE'LL PAY THE FREIGHT

And send a Buggy Wheel, Steel Tire on . \$7.75.
With Rubber Tires, \$14.50. 1 inf. wheels \$4 to 4 in.
tread. Top Buggies, \$23.75. Shells, \$10.75. Write for
catalog. Learn how to buy direct. Repair Wheels \$4.00.
Wagon Umbrella FREE. V. BOOB, Cincinnati, O.



Black Hawk GRIST MILL

A hand mill for country, village and city housekeepers.
Fresh corn meal, Graham, rye-
flour, etc. Fast, easy grinder makes 100 lbs.
Weight 17 lbs. **\$3.00. EXPRESS PAID.**

Soon pays for itself. You'll find a dozen uses
for it. Grinds corn, wheat, rye, rice, spices,
coffee, etc. fine or coarse. Just the
thing for cracking grain for poultry.
Black Hawk looks FREE.



A. H. PATCH,
Mfr. of Hand Mills and Corn Shellers
exclusively. Agents Wanted.
Clarksville, Tennessee.



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\$100,000 offered for one in-
vention. \$8,500 for another.
Book "How to Obtain a Patent" and
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rough sketch for free report as to
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GARDENING MADE EASY.

Nowadays any one who has a patch of ground for growing vegetables, can enjoy all the delights and profits of gardening without the hard work that made this pursuit drudgery before the invention of PLANET JR. garden tools. These famous implements, now known and used the world over, worked a revolution in the methods of the farm and truck gardener. Their use has resulted in an immense saving of time, labor and money, because with PLANET JR. tools one man can easily do the work of three to six men in the old way, and do it better, too. The PLANET JR. line is made by S. L. Allen & Co., in good old Philadelphia, famed for its many substantial and reliable manufacturers. The PLANET JR. covers a great variety of cultivating and needing tools.—Plain and Combined Seeders, Wheel Hoes, Hand Cultivators, Horse Harrows, Riding Cultivators (one and two row), Sugar Beet Cultivators, etc.



One of the most popular of the PLANET JR. family is the No. 26 Combined Hill and Drill Seeder and Double Wheel Hoe Cultivator and Flow. This is a time and labor saving tool without an equal. Here is what it will do: It drops in hills or sows in drills all garden seeds with the greatest regularity, in a narrow line, to the exact depth required. Plants in continuous rows or hills; marks the next row; loosens soil; kills weeds; cultivates all depths; furrows; ridges, etc. Works between or outside rows or from plants. Extremely light running; changes made almost instantly. This tool will enable you to save seed, time and labor, and will make you larger and more uniform crops.

If you are interested in gardening, be sure to write S. L. Allen & Co., Box 1107X, Philadelphia, for their splendid new 1906 catalogue, which is full of beautiful half-tone cuts of characteristic scenes in farm and garden life. This valuable and interesting book will be sent you free for the asking.

PLANT CORN

Peas, Beans, Beets,
Buckwheat, etc.

Plant
and Fer-
tilize
at
same
time.

"KING CORN FIELD"

marks out rows and plants in drills on any soil, 9, 12, 18, 24, 36 or 72 inches apart. Corn and any other seed sown at same time. Distributes all commercial fertilizers, wet, dry, lumpy, etc., 25 to 280 lbs. per acre. A great labor and time saver. Built to last. Full guarantee. Agents wanted. Send for Catalog.

Belcher & Taylor A. T. Co.,
Box 26, Chippewa Falls, Mass.

KEEP YOUR CATTLE QUIET

Dehorned cattle are quiet and docile. Cow-keepers more milk—steers fatten quicker. Put your cattle with the KEYSTONE DEHORNER. Easy, simple operation. The Keystone makes a clean cut; does not crush horn or bruise flesh. Money back if not satisfied. Write for booklet.

A. T. Phillips, Box 45, Pomeroy, Pa.

WRITE TO ERTTEL.

Before deciding about new incubators or brooders, it will be worth your while to get the "Victor Book." It is full of practical information that will be of benefit to any poultry raiser. If you are going to buy a machine, you want every bit of information you can get. The "Victor Book" will be sent absolutely free to you.

You will find two-thirds of the space in it devoted to articles of general interest to the poultryman. The other third tells why Ertel machines make more money for their owners. You should have the book. It is a question of profits with you. You owe it to your own pocketbook to know that you are getting all the chicks possible from your money and time. Get the "Victor Book" before you buy because the cost of the eggs and oil and time you waste on a cheap machine would pay the difference between a cheap one and one of the Ertel quality. It begins at the beginning and tells all the facts about lumber, about copper tanks, lamps, burners, regulators,—things you'll have to know about to operate an incubator successfully. Better write now.

Send "Geo. Ertel Co., Quincy, Ill. Say me the "Victor Book." A postal will do. You will be glad when you get the book.

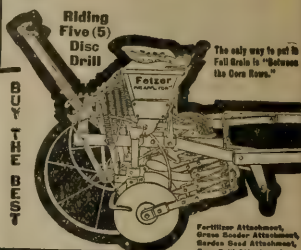
PULL OUT THE STUMPS.

Stumps left standing in the field are expensive luxuries. They are not slightly, but that is, the least consideration. They make the land hard to work, being, trying on both man and team. But the worst feature is the waste. They take up so much of the land and the very best land of the field. By doing just a little figuring any farmer with a stumpy field can determine that he is out of pocket a good sum in cash or its equivalent each year by letting the stumps stand. This waste is entirely unnecessary. With the modern appliances manufactured by the Milne Mfg. Co., of Monmouth, Ill., for doing just this kind of work, it is an easy matter to clear a piece of stumpy ground. Their Combination Stump Puller, which can be anchored by itself or to near-by stumps, is an excellent piece of machinery. A man, boy, and team can accomplish wonders with it in a short time. There are many idle days that might profitably be devoted to this work. If the machine were on hand, in the shed, the work would actually be done. It would much more then return its cost the first year, and the time of operating it would not be missed either.

This Combination Puller is advertised elsewhere in this paper. The Milne people will be glad to correspond with any one interested.

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The Machine That Raised the Price of the Farm.



"Between the Corn Rows," the horse guides the machine with the shafts. Over 4,000 sold in 1905.

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It is strong, durable, efficient and light draft. Write at once for free circular F. D.

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Manager of
Watson's Ranch,
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(The largest in the world.)

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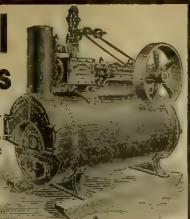
SAW YOUR WOOD



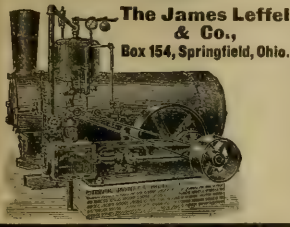
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NOTES ON A TRIP THROUGH TIDEWATER, VIRGINIA.

Editor Southern Planter:

The general lay of the country throughout this entire region is level and gently rolling; in many places the land does not rise greatly above tide-water. In the Norfolk area eight or ten feet is the general average. In the other sections visited, the elevation is considerably greater, but for the most part the soil seems to be filled with water; in fact, it approaches so closely to the surface in many instances that drainage is a necessity, particularly where truck crops are grown. In general character the soil is sandy, but it varies greatly from a sandy loam to a type of soil containing a considerable amount of clay. In many cases the subsoils are clayey in nature, generally of a light yellow color, but sometimes having a decided reddish cast, typical of the upland clays of the State. For the most part the soil is friable and easy to work, though beds of clay occur here and there, and when this land is underdrained and farmed intelligently, it is wonderfully productive, and the very long growing season enables the farmers to raise two or more crops per year.

The general agricultural practice of this section of the State is not so well developed as the natural conditions warrant, but there is a spirit of progress evidenced that is delightful to come in contact with, and the general belief in the need of agricultural education and of following scientific methods in farm work are the best evidence that the defects in the present system will soon be overcome.

In the trucking region the practice is well-nigh perfect and farming is conducted after the latest and most successful methods of practice known. Fertilizers are used in abundance; probably sometimes in larger amounts than the results justify, and especially as the maintenance of soil fertility, particularly the content of nitrogen and humus through the use of leguminous crops does not seem to have met with much favor up to the present time. The belief of the trucker is that he can not afford a rotation of crops, but that it is cheaper and better for him to use heavy applications of commercial fertilizers. This is all right in so far as it goes, but the maintenance of a soil in a desirable mechanical condition is a very important matter and can only be accomplished through adding vegetable matter to the soil from time to time. If abundant supplies of farmyard manure can always be had this will be a comparatively simple matter, but as farmyard manure is a difficult article to obtain in a region where stock raising is practically undeveloped, some other means of maintaining humus must be resorted to, and the growing of crops in a rotation offers one of the best means of solving this difficult problem. That something of

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THE ECLIPSE

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Large fully illustrated Catalogue and Treatise on Spraying—FREE.

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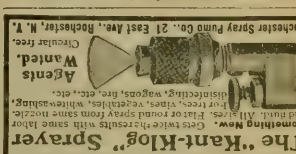


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and Whiskey Habits cured. No home without pain. Book of particulars sent FREE. R. H. Woolley, J. D. Atlanta, Ga., 103 N. Pryor St.

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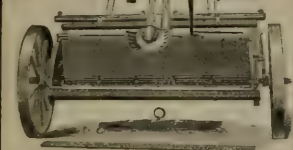
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wet or dry, coarse or fine. Positive feed, no choking, no skips.

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For Broadcast

Top-dressing or drilling. In Rows. Spreads to width of 5 ft. 10 inches. 200 to 400 lbs. per acre.



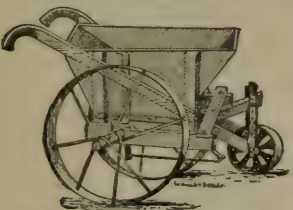
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Special Large Size, Sows 8 Feet 3 inches Wide.

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With Double Row Corn Planter and Fertilizer Attachment Complete on One Machine.



Order immediately and introduce them for next season having every possible movement. The HENCH & DROMGOLD CO. Mfrs., York, Pa.

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this nature must be done is evidenced by the complaint of certain truckers that the lands do not respond as well to commercial fertilizers as they formerly did, and that their crops in some instances are more subject to various diseases than they used to be.

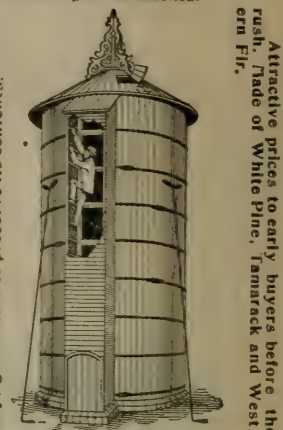
For the ideal cultivation of the land, however, and the highest type of agricultural production, the trucking region in the vicinity of Norfolk is probably unsurpassed anywhere in the United States. It is certainly a delight to witness the perfection of practice shown here; the clean, beautiful beds of spinach and kale now being fully developed and only awaiting a favorable market. This region is one of the greatest, if not the greatest, trucking section in the United States, the output of various crops being simply enormous and the price of lands little short of fabulous. The profits made on a ten acre farm in the trucking region in a favorable season read like a fairy legend, and yet one who has seen what has been accomplished there realizes the truth of every statement put forth, even by the most enthusiastic citizen of this section of the State. Pity it is that the high culture and the wonderful success achieved by the truckers of this region could not be fully appreciated in every section of the State and the soils of Old Virginia from the highest mountain to the level of the sea made to produce to their full capacity. For when that day comes, as it certainly must, the agricultural production of the State and the wealth consequent thereon, will be quite beyond the appreciation of the citizen of to-day.

The most important fact that a study of this region brings out is the surprising productiveness of soils that were thought for many years to be worth comparatively little and that are simply typical of vast areas of land in Tidewater Virginia that can easily be brought under cultivation and made as highly productive as these of the Norfolk area. It is wonderful; indeed marvellous what has been accomplished in this region. It is strange, surpassing strange, that with the evidences of prosperity and wealth gathered from the soil that greater efforts have not been made to induce immigration and to develop thousand of acres of land which lie just back of the great trucking region and are comparatively unproductive and surprisingly cheap to-day. It is remarkable that a section so favored by climatic and soil conditions as the Tidewater region of Virginia should have been overlooked by the thousands of immigrants who yearly come into the country and who seek to become land owners at the earliest possible date. We simply need to advertise to the world our wonderful natural resources to secure our full quota of a very desirable class of immigrants, for the farmers of the North and west by the hundreds, yes, even

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The only way to make dairying a success and pleasure is to use a **LANSING TUBULAR SILO** the kind that gives satisfaction.

With Improved Continuous (Air Tight) door.



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Clark's Double Action Cutaway harrow moves 15,000 tons of earth in a day.

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Wade single or double. One or two furrows five to ten inches deep; 14 inches wide. For two or four horses. Light draft. No side draft. No similar

plow made. When Clark's grass tools are used

directed in his circular we, the C. H. Co.,

warrant them to kill wild mustard, charlock,

hard duck, sunflower, milk weed, morning glory,

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grows, or money refunded. Now is the time to

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Our Combined HARROW & ROLLER

is guaranteed to give

50 per cent. better re-

sults in one-half the

time. Field look like

a garden. No foot

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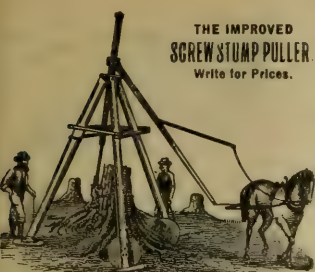
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SCREW STUMP PULLER
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HERCULES Stump Pulver



Clears an acre of heavy timber land each day. Clears all stumps in a circle of 154 feet without moving or changing machine. Strongest, most rapid working and best made.


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The Monarch Stump Puller.

The match on earth; you make no mistake in buying of a man of 5 years' experience in pulling stumps. We set up the Puller and guarantee satisfaction before we want your money. 5 sizes and prices.

Write for catalogue and prices.
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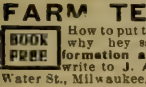


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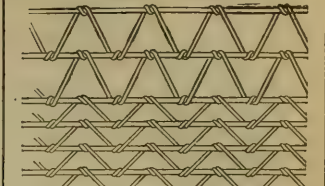
by thousands, are looking for new and better locations in the Sunny South, and ideal situations without number may be found throughout this entire region at prices for land that seem almost incredible.

There is another interest in this section which deserves more than a passing notice, and that is the traffic in fish and oysters. The oyster occupies no mean place in the commercial interests of the State and has done much to contribute to the wealth and prosperity of the section under discussion, and owing to the great demand for this most alluring of all products of salt water greater attention must be given to the industry in the future than it has received in the past, or a decided falling off in the supply is sure to result. The why or the wherefore of this condition is not clearly understood by the writer, but the necessity of giving careful attention to it is clearly evidenced and can not be emphasized too strongly. Every effort should be made to foster and develop an industry of such importance, and when it is recognized that the streams of Virginia are remarkably free from pollution and favor the production of an oyster of superior size and flavor, this industry should be encouraged by the enactment of such legislation as will be to the greatest interest of those who engage a oyster farming, for it is safe to say that the oyster lands of Virginia can be made far more productive and profitable than they are to-day if science comes to the assistance of the oyster man as it has done to the farmer and stockman. I understand the oyster men have various problems of their own, which have been ignored up to the present time. A great natural industry and one capable of such remarkable development under scientific and intelligent management is deserving of the greatest immediate consideration, for it will be easier to assist the industry and place it on a stable basis now rather than to wait until the practical extermination of the oyster has made it so extremely difficult and expensive to re-establish an industry which has done so much for the State and which can be made a much greater source of revenue and profit in the future, than in the past.

In a sense, oystering has interfered with the agricultural development of Tidewater, Virginia, particularly since the war. As already mentioned, its profitable nature has caused many men to engage in it who might otherwise have tilled the soil. In fact, the larger part of the population is engaged in oyster growing. As a result the lands have been neglected and this accounts for their being so cheap and so badly run down in many instances, and it is not due to the natural poverty of the soil and its unsuitability for growing a great variety of useful crops, as many who have visited the region have wrongly con-

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Smoke made perfectly in a few hours. Made from livery wood. Delicious flavor. Cleaner, cheaper. No smoke needed. Sold for 10¢ per pint.

E. KRAUSER & BRO

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The South is to be congratulated that with all its progress it has not gone so fast that money stands higher than character, or wealth than happiness. There are thousands of cultivated, refined, gentle and highly-educated young women in the South that would gladly marry a man with an income of \$1,500 a year, and they would live well on it, entertain the friends of herself and husband, not in regal style, but with the sweet charm, soulful hospitality and serenity of the Southern women, and would also lay aside something for a rainy day, to pay insurance and for sweet charity and the church. Southern women have not yet descended so low as to make themselves simple racks to hang rich jewels and fine fabrics upon; nor are they ready to be put up at auction to the highest bidder. There is something so exceedingly debasing in the thought of woman prostituting all the sweet graces, affections and generous impulses of her heart, all her gentle refinement and courtesies and kindly deeds that should make her character sacred, all the lofty ideals of her nature that have illuminated the moral sense of the world for thousands of years—there is something so debasing in the thought of misusing all these charms and virtues to pose as a gilded butterfly. In the absence of experience no sane mind would believe these things to be possible in the South and in our day and generation. And yet they are done to some extent, and a gathering host is following the example of these giddy things of fashion. The young women of the South, whose mothers displayed Spartan virtues when their homes were invaded and property destroyed, should have higher aspirations than to be known as fortune-hunters or as fashion's slaves. There are yet many duties for them to perform and worthy objects to be attained. Low indeed is that ambition which seeks no higher purpose than admiration. There are those whose lives are spent in outward show. They have no inward life. Their souls are shriveled into the very shreds of humanity, their hearts are chilled to all good impulses. They are birds with lithe wing and brilliant plumage who pass their lives in festive revelry and in scenes of excitement. They seem to believe there are others than themselves that have to be useful. The claims of charity, the relief of the distressed and unfortunate, the uplifting of the lowly, the practice of self-denial are foreign to their habits. Unlike the good woman, her heart is not moved in sympathy for those who "mourn and refuse to be comforted." Unlike her also when the moral sky about her is darkened, when the fire-storm of passion rages with fury, when all seems lost in a deluge of misfortune she sinks down in despair and does not point the suf-

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No. 80.—Contains 130 acres, 6 miles from R. R. Near McAdams, Pike, 7 acres cleared, 15 acres in timber, land is a little rolling, good quality of red clay, a good young orchard, just beginning to bear. Farm watered by stream and well. Comfortable 4 room house, new granary, stable for 4 horses, 1-4 mile to school, 1 mile to Store, church, P. O., and shops, situated in a good neighborhood. Price \$1,400, on easy terms.

No. 41.—26 acres; 10 miles from Washington, D. C.; 3 miles from an electric and steam railroad. Thirteen room house in nice shaded lawn, 2 cellars, well at home. Nice orchard, in full bearing. All necessary out-buildings in good repair. Price, \$3,500.

No. 43.—30 acres; an elegant brown stone house, with 6 rooms, 2 porches. Three acres young orchard, in full bearing. And necessary out-buildings, in good repair. A large stone mill building, with 2 sets of corn burrs, has 23 foot water fall. Situated in a thickly settled and refined neighborhood. All necessary repairs and doing a good local business. Price, \$3,200.

No. 62.—616 acres, natural Blue Grass land; well fenced; elegant well water. Good 5 room house, with all the necessary small farm houses in good repair; good sheep barn 30x40. Thrifty young orchard of apples, peaches, pears and cherries. Land is all in grass, except about 40 acres, that is in corn now. Close to schools, church, mill and post-office. Four miles from railroad. This farm usually sends off from forty to fifty export cattle in September. It is located in a beautiful section of the country of Loudoun, 35 miles from Washington, D. C. Price, \$15.00 per acre; one-third cash.

No. 66.—Large merchant mill, new process, all modern improved machinery, cost about \$14,000, situated in one of the finest grain sections of Northern Virginia, and is about half miles from railroad. Ample water power in ordinary seasons, but fitted up with a splendid boiler and engine to aid power in the event of a drought. For sale to settle an estate. Write for full description. Price, \$7,500.00, on very easy terms.

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No. 71.—280 acres; a fine body of white oak timber. This land is just rolling enough to drain well; it is a fine quality of land and is 5 miles from the R. R. This timber is estimated to cut from two to three thousand feet of lumber to the acre. The land alone is worth more than I am asking for both, and a quick business man can buy this tract and make on the clear either the land or the timber. It will not be on the market long at the price I am asking. Price, \$15 per acre.

No. 75.—Contains 60 acres of Good, Land Fronting on McAdams Pike. Land a little rolling, but not considered level, well fenced, about 10 acres in timber, 23 Miles from Washington. Thrifty young orchard, apples, peach and pear, good 6 room house. Stable and other out-house all in good repair. 1-4 mile to school, P. O., and shops, in elegant neighborhood. Price \$1,250.

No. 106.—Contains 330 acres; 250 acres cleared, and very well fenced, this was at one time one of the finest farms in its section; it is naturally a fine quality of soil, but has been neglected for several years, and the face knocked off it; it is a chocolate Clay Soil, which is easily improved, and will hold improvement after receiving it. 50 acres of rich bottom land, on a fine running creek the dwellings is a comfortable 3-room house, with all the other buildings in very good repair. This farm will be sold on very easy terms, and would soon pay for itself grazing cattle and sheep. 4 miles from railroad station, 1 mile from store, and post-office. Price \$3,500.

W. E. MILLER, Herndon, Va.

feers to the rainbow of promise in the horizon of the future and bid them be of good cheer.

The Southern Farm Magazine has a peculiar admiration for Southern-born women. They are the guardians of our homes, the mothers of our children, the living examples of the highest human virtues. We are unwilling and loath to believe anything disparaging to them. Yet when we see so many hundreds that have no other occupation but to ransack mercantile houses for new apparel for their adornment, attend theaters almost every day or night in the week, spend their most precious moments at card parties and dislike to discharge any household duties whatever, we fear there is, especially in the cities, a class growing up that is destined to reduce the high standard and sum total of womanly virtues. A woman may so live as to become the cynosure of all eyes; she may please by her graces and attract by her wit; her accomplishments in music, poetry and the fine arts, and even in solid learning, may be great and her beauty unrivaled; her pathway may be as brilliant as that of a meteor and also as useless, unless she acquires a knowledge of those domestic arts and duties and pleasing ways that make husband and home and children happy. This knowledge, is of more value than all other knowledge, for without it their lives would be miserable failures. A true woman is the living soul of home, and to be a true woman she must acquire those habits and practice those domestic virtues without which there is no home.

A Brilliant Example.

A little more than fifty years ago one of the wealthiest men in the South married a girl who had been trained in all the duties of housewifery. Her home was a model of thrift and neatness. Five daughters were born to this couple, and as soon as they reached an age in which they could be made useful their mother taught them all the duties incumbent upon the housewife. They were taught to sew, tidy up the house, attend to the dining-room, cook and make sweetmeats. They were also taught to milk churn and even to wash and laundry the clothing. The theory of this practical mother was that though her daughters might never be compelled to perform these duties, yet they would be better able to instruct their servants in the work if they knew how to perform it themselves. It will be interesting to our readers to know that all five of these daughters made model housewives. They married men not for their wealth, but for their ability, intelligence and worth. Not one of these girls had failed to meet all the demands of society, and their homes are among the most hospitable and the best kept in the South. Their entertainments are frequent, and it is considered quite a privilege

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In the Piedmont section of Virginia, at Lowesville, Nelson Co., a water power, 30 barrel roller flour mill with 60 acres of land, corn feed and saw mill attached, in excellent condition and enjoying a fine trade, and has a market at the door for more than it can produce. Dwelling houses, large shade trees, fine spring, 1,000 young apple trees on place. Situated in a good corn and wheat section, fine neighborhood. Plenty timber accessible to this property. Will take a farm as part payment. DR. J. B. WOOD-FARM, U. S. Pension Office, Washington, D. C.

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to be invited to one of them. The practical teachings of the mother made all her daughters model housekeepers. There is no slovenliness, no want of neatness or comfort about the house. Everything is well ordered and well administered. Another thing quite as important is there is seldom any trouble about house-servants. The trained wife of such homes being fully acquainted with and able to perform household duties, is never unreasonable or exacting with her servants. She knows what they ought to do and how to do it. The same is true of the kitchen. Each one of the girls of this family served an apprenticeship in a private cookroom in the basement of the parental dwelling under the mother's instruction. There is no one who can make better bread or cook a beefsteak more perfectly or make a better pot of coffee or prepare more dainty desserts than the girls of this family. It follows naturally that a girl so taught in the formative period of her life is fitted to become the honored wife, mother and mistress of a family. "She openeth her mouth with wisdom, and in her tongue is the law of kindness. She looketh well to the ways of her household, and eateth not the bread of idleness. Her children arise up and call her blessed; her husband also, and he praiseth her." The example of the prudent Southern mother here given is not rare in the country places. There are thousand of such homes, greatly to the credit of Southern women. There is a tendency, however, in the town to ape the manners of the money-loving women of the cities. True, home-loving wives, like the most solid business men of the cities, must in a large degree come from the intelligent country homes. They are the nurseries of these virtues, that lead womankind on to a higher and brighter destiny.—Col. J. B. Killebrew, in Southern Farm Magazine.

Bryan, Va.,
Jany. 15, 1906.

Editor Southern Planter:

I am trying to get every young man, as well as the old, to take and read your valuable Journal. No farmer should be without it, as the cost is in reach of all. And its teaching is very instructive, and indispensable. To follow its dictations is a proof of same. I am in the "Dark Tobacco Belt," and the only complaint that can be made against the Planter is, that is has less to say on the dark tobacco than any other subject. And if you will give us a few lessons along that line, it would be quite a help to many of us. And it would not be objectionable with us, if you would spread "the good tidings" of The Dark Tobacco Association throughout the world, as it has come to stay, and is growing daily. "A necessity is the mother of (this) inventions. T. C. M.

Ideal Country Homes.

-O- -O-

Look at these Bargains.

-O- -O-

A. 12½ acres fine fruit and trucking lands. Good seven-room house, with basement; fine well at door, another one at the barn; all necessary outbuildings; planted to most every kind of fruit. A splendid place for trucking. A stream of water crosses one end of the place. Price, \$3,000; half cash, balance to suit.

B. 10 acres adjoining above. One of the most commanding sites in Vienna. Entirely planted to apples, pears, peaches and cherries. Over one thousand young and thrifty trees on the place. Price, \$1,500; half cash, balance to suit. This ought to go with above, but will be sold separately.

No. 137. 450 acres at Clifton Station; 2 cottages and one tenant house on the farm; also 18-room hotel, with basement, that has been used for store-keeping; plenty of nice shade. This is a fine business place, a fine opening for the right man. The tract can be divided up into a number of small places. The hotel has done a fine business. Price, \$10,000; on easy terms. There is a fine, noted spring near the hotel.

No. 105. 98 acres; 30 clear, 20 in cultivation, the balance in wood; fine stream through the place; 3 miles from railroad. Near school, church and store. Price \$300. Terms to suit. This would make a cheap farm.

No. 106. 25 acres; all clear; 14-room house in good condition; well at the door; barn and all necessary outbuildings; good fence; all kinds of fruit; 2½ miles north of Vienna, near school, churches and store. Price, \$3,500 on easy terms. This is a fine, large house, in good condition; has beautiful shade; would make a fine summer boarding house.

No. 162. 35 acres near Arlington; 33 cleared and in cultivation, 2 acres in oak and other timber; four frame houses, two of five rooms and two of three rooms, barn, good wells. Five minutes' walk from the trolley car, ten

minutes' from schools, churches and stores. Price, \$15,000. Terms: All cash preferred. Will sell in tracts not smaller than five acres at \$500 per acre. This property would make very valuable building sites.

No. 107. A bargain. 17 acres. 10-room stone and frame house in good condition. Has all necessary outbuildings; plenty of good, pure water; has peaches and apples. Fenced with pickets and boards. Also a large saw and grist mill with hominy and crusher attachments; is run by water and steam power. Grist mill is 51 feet long and 42 feet wide, 3½ stories high; saw mill attached is 40x40, has a capacity of 2,900 feet a day. The mill is kept busy all the time. It is in a fine neighborhood. This is a fine opening for the right man. The reason for selling is that the owner is getting old and not able to do so much business. If sold right away will take \$3,500 for house, farm and two mills, or will exchange for smaller property.

No. 89. Fine blue grass farm. 500 acres; two sets of buildings; new 8-room house and cemented cellar. Old house has six rooms. Good well at the door of each house. Two good barns and all necessary outbuildings. 500 fruit trees; 11 good springs; well fenced; 46 acres in meadow; 30 acres in rye; 80 acres in good pasture; 55 acres for corn this year; one-half mile from school, church and store. This is a splendid place and is very cheap. Price, \$3,500.

No. 130. 19½ acres. 8 acres cleared, balance in all kinds of timber. Near Springfield station, old house, spring nearby, some fruit, two miles from school, church and store. Price, \$300, on easy terms.

No. 230. For sale. In Vienna, on easy terms, new 6-room house, reception hall, 3 porches and five cellar, barn and other outbuildings, well on the porch, lot 10x200, all set out in peaches. Electric car stops near the house. This is a beautiful home. Would be fine for an office-holder. Let me show you this house.

-O- -O-

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WASHINGTON NOTES.

Demand for Meat Inspectors.

Congressmen are beginning to be besieged with demands for some quick legislation to facilitate shipment abroad of American meats.

Secretary James Wilson, of the Department of Agriculture, made the statement a few years ago, that unless Congress speedily grants the emergency appropriation of \$135,000 asked for by him to supply additional inspectors and microscopists, it is probable that more than \$50,000,000 worth of orders for American pork and beef products placed by German dealers will go unfilled.

On March 1 next, Germany will put into operation its new tariff law on products coming from the United States. There is now in that country a meat famine, and the German dealers, in anticipation of the new tariff law, are flooding the packing houses of this country with orders.

This has resulted in such an immense business for the American packers that they are now embarrassed for lack of inspectors. This fact alone, states Secretary Wilson, has led him to call for the emergency appropriation and is no violation of the law of Congress that prohibits members of the Cabinet from contracting for services without the consent of Congress. Secretary Wilson declared that he had created no deficiency but that on the contrary he was asking only for an emergency appropriation to meet the conditions, which an enormously increased business of the last few months, with no increase in the inspection force, has created.

In speaking of the expenditure by the Federal Government of a large sum of money to provide packing houses with inspectors, Secretary Wilson stated that he was strongly in favor of having the packers pay all the inspection expenses. These inspections are, of course, to be under governmental supervision. In fact, the packers have voluntarily expressed a willingness to adopt this method of paying for the services of the skilled men, and in the present emergency the majority of them have told the Secretary that they would be willing to pay the salaries of a sufficient number of inspectors required; but as there is no law by which this method could be carried out, the Secretary is unable to comply with their requests.

Should Congress pass a law requiring the packers to pay for meat inspections, such a procedure would not only save the Government a vast sum of money, but would also prevent just such a state of affairs as exists today. Secretary Wilson is daily besieged by letters and telegrams urging him to do something in the way of assisting the exportation to Germany of the beef and pork which had been ordered. The general gist of these communications is that the sit-

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Drop out this advertisement and mail it soon to-day with your name, postoffice address and nearest express office. Tell us whether you want a lady's or gent's watch and we will send the watch to your express office at once. If it satisfies you, after a careful examination by the express agent \$5.45 and express charges and the watch is yours, but if it doesn't please you return it to us at our expense.

A 25-Year Guarantee will be placed in the front case of the watch we send you and to the first person customer we will send a beautiful gold-leaf watch chain, free. We refer to the First National Bank of Chicago, Capital \$100,000,000.

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nation is deplorable and desperate, but the Secretary is unable to meet the emergency owing to the lack of money and authority. It seems to be up to Congress to act, and act quickly, to preserve the interests of both the stock growers and the packers.

Preservation of Eggs.

The North Carolina Experiment station has submitted a report to the Department of Agriculture, showing the results of some experiments with egg preservatives.

10 per cent. solution of water glass gave very satisfactory results, the eggs keeping well from June until the following May. Some of those used in December so closely resembled fresh eggs that it would take an expert to tell which were the fresh eggs and which were the packed ones after they were cooked. A 20 per cent. solution of water glass did not give as satisfactory results. Though none of the eggs were spoiled, the whites in some cases were slightly coagulated and some of the eggs would sink to the bottom of the solution.

A lime and salt solution gave as satisfactory results as water glass, only one of the eggs being spoiled. A solution of lime and salt with British Egg Preserver (borax and sodium bicarbonate) also gave good results, but it could not be seen that the addition of the preserver gave any returns for the money it cost and trouble of using. A solution of salicylic acid in water (one ounce to a gallon) gave good results, one of the eggs being spoiled, but it did not leave the eggs in as good condition as the water glass or the lime and salt solutions, since the acid weakened the shells.

Eggs were also coated with salicylic acid and cotton-seed oil with and without alcohol, with paraffin, colodion and gum arabic, and then packed in cotton-seed hulls. Conclusions could not be drawn as to the value of these preservatives since the eggs were accidentally destroyed. However it is believed that these preservatives and others of a similar character are not as satisfactory as the liquid preparations, because of the extra labor in putting up and the evaporation that takes place, leaving the eggs shrunken in appearance when broken.

Work of the Bureau of Chemistry.

The Bureau of Chemistry of the Department of Agriculture is aiding the Postoffice Department in controlling the sale of proprietary medicines. This has been done by inspecting a great number of the so-called specifics which in reality contain a large percentage of cocaine, morphia, chloral or alcohol, with no warnings to the customer of the presence of such drugs.

The Bureau of Chemistry has made inspections of exported and imported foods as well as physiological experi-

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As Manager of Stock (Dairy, Hogs or Sheep) farm by single man of 33. Life experience with stocks, crops and machinery and can handle men. Understands feeds and fertilizers. References from last employer as to honesty, sobriety and ability. Will prove ability or no contract.—R. J. MURPHY, 615 State St., Madison, Wis.

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ments with food preservatives. A total of 7,339 samples were analyzed during the year, including 3,750 samples of imported foods, 2,579 samples for the Bureau's practical eating-test table, and 1,009 miscellaneous samples. Other investigations of the Bureau include experiments with pure yeast cultures to produce a cider of predetermined composition. The Department of Agriculture through the Bureau of Chemistry maintains an experimental factory at Waycross, Georgia, where observations are being made of the growth, manufacture and preservation of table syrups. The Bureau is just completing a five-year study of the effect of environment upon the composition of the sugar beet.

Agricultural Capacity of the World.

One Malthus, an English clergyman, in years gone by, calculated that within a measurable time the human race must deliberately block its own increase, lest its numbers surpass the food producing powers of the earth. Latterly the English scientist, Crookes, calculated that the wheat-growing area of the earth was nearly all occupied, and gloomily enquired what, a few years hence, a hungry and increasing world would do for bread. Now, Professor Shaler, of Harvard, estimates that the land still untitled will admit of the doubling of the present population of the world, and furthermore, that the reclamation of marshes and deserts will permit of another doubling. The breeding up and improvement of food producing species of plants, whereby the yield can be doubled, the regeneration of millions of acres of desert land, through irrigation and the introduction of new plants for growth upon dry lands now considered waste, open up such a broad avenue of unlimited crop production that any estimates of the final agricultural capacity of the earth's surface must be found more upon guess work than fact.

Farming with Brains.

The reason for the bountiful crops in the United States within the past eight or ten years may not be assigned entirely to favorable climatic conditions or exceeding fertility of the soil, but on the other hand the great output is the result of brains. Every year more brains is put into farming in this country, so that the agriculturist of to-day goes about crop-raising with more reasoning, and capacity for understanding the cause and effect of insect depredations, plant, disease, etc.

It is said that the most productive farms of the United States are those in the northwest, where the farmer is an up-to-date business man, keeping comprehensive books and with a distinct and well thought out system. This system enables him to know how much a crop costs, how to grow it and what profit it brings. Newspa-

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pers and magazines are his library, and he is quick to figure out whether or not new methods of cultivation and new machinery would be of profit to him.

The stingy feeder cheats himself as well as his cows; but on the other hand, the dairy cow that will not repay generous feeding should be displaced at once.

GUY E. MITCHELL.

SOUTHERN POETS.

Number 12. Mary Washington. To Georgia is reserved the glory of having given birth to the greatest of all Southern (or, I might say, American) poets, except Edgar Poe. Lanier was born in Macon, Ga., Feb. 3, 1842, and died in 1881, before he had reached the age of 40, his early death being another link between Poe and himself. His earliest known ancestor was Jerome Lanier, a Huguenot refugee, attached to the Court of Queen Elizabeth, very likely as musical composer, and whose son Nicholas stood high in favor with James I and Charles I, as director of music, painter and political envoy, and whose grandson, Nicholas, held a similar position in the Court of Charles II. He was first marshal or presiding officer of the Society of Musicians, incorporated at the Restoration "for the improvement of the science, and the interest of its professors," and it is remarkable that four others of the name of Lanier were among the few incorporators. Thus we see that a talent and love for music have characterized the Lanier family as far back as we can trace them.

The American branch of the family emigrated to this country in 1716. Thomas Lanier settled with other colonists on a grant of land ten miles square, including the site of the present city of Richmond.

The father of the poet was Robert S. Lanier, and his mother, Mary Anderson, a Virginian of Scotch descent, belonging to a family gifted in music, poetry and oratory, and which had supplied members to the House of Burgesses for more than one generation. We see thus that Sidney Lanier inherited his artistic temperament from both sides of the house. His earliest and strongest passion was for music. A child he learned to play, almost without instruction, on every kind of instrument he could find, flute, organ, piano, violin, guitar and banjo. He devoted himself especially to the flute, weaning himself from the violin, in deference to the wishes of his father, who feared for him its powerful fascination.

At the age of 14 he entered Oglethorpe College, Ga., and graduated with the first honors in 1860. Immediately afterwards he was called to a tutorship in the college, which he held till the breaking out of the war. He then enlisted with the Macon Vol-

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unteers, which was the first military
organization to leave Georgia for Vir-
ginia. He was in the battle of Seven
Pines, of Drewry's Bluff, and the
seven days fighting at Malvern Hill.
It is said that his captain is still liv-
ing in Richmond, and has many in-
teresting reminiscences of Lanier, who
was famed among his companions for
his beautiful music on the flute. He
three times refused promotion in the
army because it would separate him
from his younger brother. At length,
however, they were separated, each
being called on to take charge of a
vessel to run the blockade. Sidney's
vessel was captured and he was a pris-
oner five months at Point Lookout. He
was released in February, 1865, and
returned on foot to Georgia, reaching
there completely exhausted. An ill-
ness of six weeks ensued, and just
as he was beginning to rally his
mother died of consumption, a disease
of which he himself had already ex-
perienced symptoms, and he arose
from his sick bed with one lung con-
gested. He filled a clerkship in Mont-
gomery, Ala., for about 18 months, and
in September, 1867, he took charge of
a country academy of nearly 100 pu-
pils in Prattville, Ala. He was mar-
ried in December of that same year to
Miss Mary Day, of Macon, and their
union seemed to realize all a poet's
fondest dreams.

His first work was a novel, pub-
lished in 1867, and entitled "Tiger
Lilies," a spirited tale of Southern life,
beginning just before the war and end-
ing with its conclusion, but Lanier had
not found his true vocation as a novel-
ist. He was destined to win much
greater laurels in other fields.

He began to be more and more con-
scious of the great gifts in him, and
determined to give himself up to music
and literature as long as he could
keep death at bay. His poems were
beginning to attract the attention of
the thoughtful and cultivated, and his
music was even more remarkable. He
became a professional flutist, settling
in Baltimore in December, 1873, under
an engagement as first flute for the
Peabody Symphonic concerts, and this
position he held for six years. When
he first entered on it, he had had
scarcely any technical training, but
with a little practice and in an at-
mosphere of music, he rapidly ac-
quired such exquisite skill that he was
pronounced by competent critics to be
the first flutist of the world. He
achieved the most signal triumphs
with his instrument, drawing from it
wonderful violin effects, and melting
with rapture both the scientific and
the unlearned with the marvelous ex-
pressions and soulful sweetness he
threw into its strains. One has to
read Lanier's letters to realize how
large and vital an element music was
in his being, more so even than poetry.
He wrote Hayne that "he had loved
and studied music more deeply than
poetry," and his delight in it could be
expressed by no word short of ecs-



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tacy. He was a composer, as well as an executionist, and had he lived longer and had more strength, he would doubtless have founded a new, beautiful, and distinctly American school of music. In writing to his wife (Brooklyn, November, 1873), about the musical successes he had met with in that city, he adds, "Perhaps the most complete triumph I have had was on last Sunday evening, when I played before an audience of a half-dozen or more cultivated people. When I had given "Blackbirds," "The Swamp Robin" (his own compositions), the house rose at me. Miss Fletcher declared that I was not only the founder of a school of music, but the founder of American music, that hitherto all American compositions had been only German music done over, but these were, at once, American, un-German, classic, passionate, poetic and beautiful."

Asger Hamerik, his director for six years at the Peabody, and himself a master musician, pays the highest tribute to Lanier's musical genius. "In his hands the flute no longer remained a mere material instrument, but was transformed into a voice that set heavenly harmonies in vibration. Its tones developed color, warmth and a low sweetness of unspeakable poetry. His playing appealed alike to the musically learned and unlearned. The artist felt in his performance the superiority of the momentary, living inspiration to all the rules and shifts of mere mechanical scholarship. With his settlement in Baltimore begins the history of as brave and sad a struggle as the records of genius contain. He had a wife and young children to support and not only had he poverty to contend with but a deadly disease that held him in its iron grip for the last fifteen years of his life. Even for a man of the most robust physique, his life would have been a strenuous one. On the one hand, there was a consciousness of power and indomitable will; on the other hand, a body wasting with consumption which he was forced to task far beyond its strength. Often for months together, he could do no work, but had to be carried to Texas, Colorado, North Carolina, and other places to try to recover health or at least to stave off death for a time. Never was there a finer instance of the triumph of mind over matter than Lanier exhibited between these intervals of illness and even during them. He had a full consciousness (though not an egotistical one) of his own powers, and we may imagine the trial it was to a man possessing such surpassing gifts to be thwarted and baffled (in part, at least) by the want of means and the want of health. He writes his wife, "So many great ideas for art are born to me each day; I am swept into the land of All-Delight by their strenuous sweet whirlwind, and I find within myself such entire yet humble confidence of possessing every single element of



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power to carry them all out save the little poultry sum that would suffice to keep us fed and clothed in the meantime. I do not understand this."

He devoted himself with intense energy to the study of English literature, making himself master of the Anglo-Saxon and early English texts and pursuing the study down to our own times. He read and studied freely also in other fields, history, philosophy, philology, and science. It was his theory that a poet needs a large substratum of knowledge. His life, as I have said before, was truly a strenuous one. He played at the Peabody as well as at other concerts and musical festivals, studied, delivered lectures, wrote poems and essays with frequent interruptions from hemorrhages and severe illness.

His poem on "Corn," published in Lippincott in 1875, was the first one that attracted much attention and the following year Bayard Taylor (between whom and himself a warm friendship sprang up), suggested that he should be chosen to write the Cantata for the Centennial at Philadelphia in 1876. This Lanier did, Dudley Buck composing the music, and Thomas' Orchestra performing it.

The first poem that gave him wide recognition as a poet was "The Symphony," one of his finest. Amongst other poems to which critics have assigned the highest rank, I might mention "The Psalm of the West," "The Marshes," and "Crystal." To my thinking, he has written nothing more beautiful than the latter. "Sunrise" is considered by many persons his most beautiful and elevated poem. It was written while he was almost in the throes of death, with his temperature at 104. He was then so near the sunrise of the other life that its dawn may have shed its light on this poem and lent to its strains their wonderful elevation of thought, but there is throughout his poetry a solemn, worshipful element giving loftiness to its beauty.

Lanier was a fine lecturer. He commenced by delivering parlor lectures on Elizabethan verse to a class of 30 ladies, and afterwards gave a more ambitious course of lectures on Shakespeare in the smaller hall of the Peabody Institute. In 1879 he was appointed to lecture on English literature the ensuing year at the Johns Hopkins University, but by this time his disease had made such inroads upon him that it was with the utmost difficulty he could deliver these lectures, and at times it seemed to his hearers as if his breath would give out finally before the lecture ended.

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Beware of imitations—none genuine but Tuttle's. Avoid all blisters: they offer only temporary relief if any.

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Extra fine plants of SUCCESSION, EARLY FLAT DUTCH, JERSEY WAKEFIELD and CHARLESTON WAKEFIELD. Price \$1.25 per thousand. Large lots \$1.00 per thousand. F. O. B. Express Charleston. Cash with order.—ALFRED JOUANNET, Mount Pleasant, S. C.

A PRICE STRAWBERRY.

The Olives Pride Oak's Early the best 40 other kinds of strong and healthy true to name. Second crop Seed potatoes, Asparagus Roots, Seed Corn, etc. 25 years experience, Catalogue free. JOHN W. HALL, Marlton Sta. Md.

IMPROVE YOUR CHICKENS.

High class BLACK MINORCAS exclusively. My stock averaged over 200 eggs each last year. \$1.00 for 13 eggs; \$2.50 for 35.—J. S. WORSHAM, 1108 Polk St., Lynchburg, Va.

QUALITY

FARRED PLYMOUTH ROCKS. See my ad in October Planter, Page 788. L. W. WALSH, Drawer 248, Lynchburg, Va.

Hollybrook Farm.

We have an extra fine lot of

Barred PLYMOUTH ROCK Cockerels.

Price, first-class birds, \$1.50; extra select birds, \$2.00 each.

PARTRIDGE WYANDOTTE COCKERELS, from prize winning stock. Price, \$2.00 each for first-class birds; \$2.50 each for extra select birds.

All crated and delivered to express office, here. Address, HOLLYBROOK FARM, Box 330, Richmond, Va.

FAMOUS "RINGLET"

B. P. ROCKS.

25 CHOICE cockerels @ \$1.50. 20 TIP-TOP COCKERELS @ \$2.50. "Invincible" WHITE WYANDOTTES @ \$2.50. 14 CHOICE, clear-cut cockerels @ \$2.50. 15 EXTRA CHOICE cocks and cockerels, NONE BETTER, @ \$2.50.

ROSE COMB WHITE LEGHORNS, noted "Babcock" strain. 24 EXTRA CHOICE, MAGNIFICENT cocks and cockerels @ \$2.50. 12 cockerels very nearly as good, Beauties @ \$1.50.

A few "PLUMB GOOD" pullets each variety @ \$1.50. Eggs in Season. Reasonable Prices. Scotch Collies also for sale. Satisfaction our motto. Send your orders to-day. "First come, first served."—E. C. NEWTON, Prop., Pee Dee Poultry Farm, Bennettsville, S. C.

BEST STOCK. FARMERS PRICES.

White P. Rocks, S. C. Brown and Buff Leghorns.

Bred from prize winning strains, and great layers.

Double your egg production by feeding "GRANULATED MILK" 45 per cent. Albumenoids. Save the little ones by feeding "BABY CHICK FOOD." Booklet fully describing these and other supplies and remedies free. J. N. COFFMANN, manager, Edinburg, Va.

EGGS FOR HATCHING

B. P. Rocks, S. C. Brown Leghorns. Our birds are directly bred from 1st prize winners at N. Y., Boston, Phila., Pan America, Chicago, St. Louis and leading southern shows.

Eggs from Exhibition matings \$2. per 10, \$10. per 100. Eggs from Utility matings \$1. per 15 \$6. per 100. Two-thirds hatch guaranteed or sitting duplicated at half price. Our business is growing! why? because we started with the best stock money could buy and have pleased our customers. Why not let us start you right with a setting or two of eggs.

Hatch your winners now for next fall show. We breed only the best and use the double mating. STRAWBERRY HILL POULTRY YDS., Box 287, Richmond, Va., Breeding yds. 4 miles from City on C. & O.

EGGS FOR SALE

From high scoring females headed by prize winning male S. C. BUFF ORPINGTON, R. C. RHODE ISLAND REDS, COLUMBIAN, SILVER LACED WHITE and PARTRIDGE WYANDOTTES, S. C. WHITE LEGHORNS. Some fine Leghorn pullets and cockerels for sale cheap. Remember we guarantee safe delivery and that all stock and eggs will be as represented.—RIVERSIDE FARM, Enola, N. C., R. F. D. 1, Box 4.

not obscure nor fetter his poetic genius. Under the designation of "tone color," he treats suggestively of rhyme, alliteration, vowels and consonant distribution, showing how a recurrence of euphonic vowels and consonants secures the rich variety in tone color which music gives in orchestration. Illustrations of these technical beauties abound in his own works, as, for instance, in "The Song of the Chattoohoochie," "Sunrise on Marshes," and others.

After his death, his lectures on "The English Novel and its Development" were published, also his complete poems and a volume of essays on music and poetry. Last of all, his letters have been published, and they are nearly as beautiful and soulful as his poems, and they throw great light on him, both as a man, a poet and a musician. The late Dr. Curry says of these letters that "though nominally in prose, they are an unbroken series of poems. The poet has embodied in them the richest thoughts and the emotions of his spiritualized nature."

He has been compared to Milton and Ruskin in his love of the beauty of holiness. In one of his lectures he says, "The beauty of holiness and the holiness of beauty are one and the same thing, burn as one fire, shine as one light."

The most remarkable feature about his gifts is their complete symmetry as well as greatness. He overflows with fancy and imagination, possesses the constructive and critical faculties in a high degree, has a vein of wit and humor in the background of more recognized qualities, and adds to all these natural gifts, the acquisitions of fine scholarship. How brief his day and how great his physical limitations! Before his sad heroic life closed, the world began to discern the greatness of his gifts, and with an ever-increasing recognition of this, it has assigned him a place amongst the Immortals, with Poe, Keats, Shelley, Tennyson and others of the illustrious brotherhood of great poets.

ABSORBINE USED ON TRENTON

A. 2:10 1/4.

Trainers and owners of valuable horses do not experiment when they have a case of strained tendons or ligaments, soft bunches of any kind, they use Absorbine. Absorbine does not blister or remove the hair and horse can be used during treatment. It is mild in its action but positive and permanent in results. Anderson Bros., Roachdale, Ind., write under date of July 3rd, 1905: "We have been using Absorbine last year and this season, and used it successfully on 'Trenton A.' 2:10 1/4, last season. We think it is the best liniment we have ever used." Get a bottle from your druggist or send \$2.00 and get a bottle, express prepaid, direct from W. F. Young, R. F. D. 109, Monmouth St., Springfield, Mass.



Farmers and Poultrymen.

YOUR ATTENTION PLEASE.

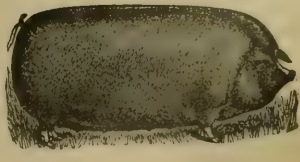
Order before it is too late. I have what you want and prices are right, quality considered. Few very choice Mammoth Bronze and WHITE HOLLAND TURKEYS for prompt buyers. Toms, \$5.00 and \$6.00 each, according to size and quality. Choice hens of both breeds at \$4.00 while they last. Eggs in season, \$4.00 per dozen. Order eggs now and have them shipped when wanted. PEKIN and ROUEN DUCKS, \$6.00 to \$10.00 trio, according to size and quality of birds. Duck eggs, \$1.50 per dozen; \$3.00 per 100. STRICTLY FANCY WHITE COCHIN BANTAMS bred from Chicago prize winners, \$5.00 trio, if unsold. BARRED, WHITE and BUFF PLYMOUTH ROCK COCKERELS, and females also WHITE and SILVER WYANDOTTES at \$2.00 up for males and \$2.00 dozen up for females. Fancy lot WHITE and BROWN LEGHORNS at \$18.00 dozen, two cockerels included with each dozen birds ordered. These prices only for immediate acceptance, and subject to prior sale. SIX SILVER HAMBURG PULLETS for \$12.00, if ordered promptly. MOTTLED ANCONAS, R. I. REDS, PARTRIDGE COCHINS, BLACK MINORCAS, LIGHT BRAHMAS, and S. C. BUFF ORPINGTONS. Prices right and quality right.

Do not forget that I am booking orders for all of the above kinds of chicken eggs at \$1.50 and \$2.00 per sitting of 15 eggs, and in lots of 100 or more, \$3.00 per hundred. ORDER ONE DOZEN EGGS FROM MY PEN OF SEVEN S. C. BROWN LEGHORNS that cost \$175.00. I will have only a few dozen to spare at \$5.00 per dozen. Those ordering first will get them, later on will not have any for sale. I can furnish Plymouth Rock and Leghorn eggs, both white and brown, from my regular stock, by the 1,000, for instance, if orders are placed in advance. Do not delay. Write to-day.

POLAND CHINA, CHESTER WHITE, and BERKSHIRE PIGS all ages, mated and eligible to registry. Service Boars and Bred Sows always on hand. SHROPSHIRE and SOUTHDOWN SHEEP all ages and eligible to registry. A few choice bred Ewes at \$25 each, Service Rams of the finest individuality at right prices for strictly choice animals.

JAS. M. HOBBS,

1521 Mount Royal Avenue,
BALTIMORE, MD.



Single Comb Brown Leghorns

EXCLUSIVELY.

If you want eggs that will hatch good, strong, PURE BRED chicks of this or any other breed buy them from a breeder that breeds but one kind. I am situated so that my flock is nearly one mile from fowls of any kind. Mine are all good ones and pure Leghorns. Read what one of my customers says about my stock.

"You will doubtless remember that I bought some eggs of you last spring. I had rather poor luck, taken as a whole though I have raised some nice fowls. I find that I have pure cockerels, and this is about six more than I need. I notice in your add in Southern Planter that you have no stock for sale, and it has occurred to me that perhaps you could find me a buyer for six of my cockerels. They were raised from your eggs, and are fine as one would want. Healthy and vigorous and have had a good range over 40 acres, and I have fed and cared for them well. I would send them to you or to any address that you might name at a price that you think right. If you can use them, I can sell them here in the country at a dollar apiece, but as I am the only one here who raises S. C. B. L., I don't want every one to have fowls like mine.

I shall want some more eggs later, as I am going to buy an incubator, and I shall order from you, as I know your stock is ALL RIGHT. Let me hear from you if you have time, and if you possibly can use them, make me an offer on my six surplus cockerels. Yours very truly, J. B. WADSWORTH, Cashier.

P. S. Since writing this A. M., have sold one cockerel to a guest for \$2.50, so I have only 5 left. W.

Will sell you eggs that will hatch this kind for \$1.00 for 15, \$5.00 per 100, \$50.00 per 1,000. Write to me or to my wife, CAL HUSSELMAN, Roxbury, Va. R. F. D. 1.

S. C. W. LEGHORNS.

I have an extra fine lot of Stock and Eggs for Sale; ALSO Eggs in season from R. I. REDS, WHITE WYANDOTTES and S. C. Buff Leghorns. My prices are the lowest. H. W. STEWART, Eufoia, N. C. R. F. D. 1. Box 6.

EGGS.

Orders booked now for B. P. Rock and Pekin Duck eggs. Also, cheap, quality considered, a fine lot of B. P. Rock cockerels. W. B. Toms and Pekin Ducks.—CHARLES BROWN, Route 1, Cartersville, Va.

Single Comb White Leghorns!

Wyckoff strains of celebrated layers. Eggs \$1.00 for 15. BARRED PLYMOUTH ROCKS Parent stock from Biltmore, Eggs \$1.00 for 15.—COTTON VALLEY FARM, Tarboro, N. C.

S. C. WHITE LEGHORNS (Wyckoff strain). B. PLYMOUTH ROCKS (Hawkins strain). S. C. BROWN LEGHORNS (Biltmore strain). S. C. BUFF LEGHORNS. Stock and eggs for sale.

MAMMOTH BRONZE TURKEYS. Stock and Eggs for sale.—MARION POULTRY YARDS, Marion, Va.

R. C. WHITE LEGHORNS

and BUFF PLYMOUTH ROCKS. Eggs, \$1 per 15; \$5 per 100.—FRED. NUSSEY, Massaponax, Va.

HINTS BY MAY MANTON.

TO BE MADE WITH OR WITHOUT APPLIED FOLDS. PERFORATED FOR WALKING LENGTH.

The circular skirt in all its variations makes a pronounced favorite of the season and is being shown in some exceptionally graceful and attractive models. Illustrated is one of the best that combines a narrow front gore with the circular portions and which can be treated in various ways. The



5233 Three Piece Skirt, 22 to 30 waist.

original is made long and is trimmed with applied bias folds between which are rows of soutache braid, but the folds are optional and the skirt can be left plain and trimmed in any manner that may be preferred. Again, the folds can be used and the braid between applied in any pattern or design that may be liked or omitted altogether. The fullness at the upper edges is collected in narrow tucks that extend well over the hips, doing away with all fullness at that point, and what is still further advantage, the skirt can be cut off in walking-length if desired. In this case plum colored broadcloth is stitched with belding silk and trimmed with black braid, but all the materials of the season are appropriate.

The skirt is made in three pieces and is laid in inverted plaits at the centre back. The folds are bias, made double, and arranged over it on indicated lines.

The quantity of material required for the medium size is 12 yards 21 or 3 yards 44 or 52 inches wide with 45 yards of soutache braid to trim as illustrated.

The pattern 5233 is cut in sizes for a 22, 24, 26, 28 and 30 inch waist measure.

No style of dress suits the young child better than the Russian and among all the Russian models is none prettier than the one illustrated which is adapted alike to girls up to eight years of age and to the wee boys who have not put off dresses. As shown the material is dark red cashmere trimmed with an effective band-

BELMONT POULTRY FARM.

BREEDER OF HIGH-CLASS

BARRED and WHITE PLYMOUTH ROCKS and WHITE WYANDOTTES.

Eggs: \$1.50 for 15; \$2.50 for 30.

S. C. WHITE LEGHORNS, Blanchard and Wyckoff strains; Eggs from best pen \$1.50 per 15; Second, \$1 for 15. S. C. BROWN LEGHORNS, Whitman strain, \$1.00 for 15. Will spare a few sittings from our 240 egg strain of S. C. Brown Leghorn, mated to produce exhibition males, at \$2.50 for 15. Satisfaction guaranteed.—H. G. ROBERTS, Prop. Roanoke, Va.

BARRED PLYMOUTH ROCKS.

Strong, healthy, farm raised birds for sale at all seasons; COCKERELS, \$1 to \$1.50; B. P. ROCK and PEKIN DUCK eggs, \$1 for 15; 2 Sittings, \$1.50. Reduced prices after April 15 on eggs.—MRS. R. E. WILHOIT, Phone 110. Somerset, Va.

STRICTLY FRESH EGGS for Hatching.

Barred Plymouth Rocks

15 years line bred beautifully barred large size, bred-to-lay kind. Eggs \$1.00 per 15; \$1.50 for 30; \$4.50 for 100. Guaranteed fresh, large per cent. fertile, none shipped over 3 days old. MAMMOTH BRONZE TURKEYS correct in plumage, large bone, eggs \$3.00. Doen. Cockerels, \$1 to \$2.

E. F. SOMMERS, Somerset, Va.



Valley Farm

BARRED ROCKS S. C. B. LEGHORNS (Forsyth Strain).

Stock for sale.

Prices right.

CHAS. C. WINE, Musidney, Va.

25 HALF GROWN

B. P. ROCK PULLETS

and 2 Cockerels.

12 R. C. WHITE WYANDOTTES.

Prices furnished on application. Eggs for hatching from pure-bred B. P. Rocks \$1. per 15. SAM'L SCOTT, Vinita, Va.

EGGS FOR HATCHING.

from pure bred WHITE HOLLAND TURKEYS and WILD MALLARD DUCKS, \$2.50 per 12; MAMMOTH PEKIN DUCKS, \$1 per 12; WHITE GUINEA, WHITE WYANDOTTE and S. C. WHITE LEGHORNS, \$1 per 15.—WHITE POULTRY YARDS, Lorraine, Va.

PIEDMONT HEIGHTS FARM

FANCY MILLS, VA.

Can sell you a choice, fully matured Cockerel of WHITE and BROWN LEGHORN or WHITE WYANDOTTE fowls at \$1.00 each. You can find none better anywhere.

EGGS FOR HATCHING.

Pure-bred WHITE WYANDOTTES \$1.50 per sitting of 15 eggs. Apply to JOHN W. LANGFORD, Medlock, Va.



TREVILIAN POULTRY YARDS
HEADQUARTERS FOR
BARRED PLYMOUTH ROCK EGGS.
\$1.40 per sitting of 15; 2 set in 25
\$2.75; 3 sittings \$4.00 and \$6.00
per 100.

Yards headed by some world-renowned, prize-winning blood; our matings this season should produce some of the great birds of the breed. We sell A. C. Hawkins' strain and E. B. Thompson's "Ringlets" noted for their massive size and as winter layers. Our stock will improve yours, and our eggs are cheap, quality considered. Cheap eggs from inferior birds mean good money squandered, so write us before buying as we are sure to please you. C. DANNE, JR. Prop. John Mahanes, Mgr. - Trevilian, Va.

THE LAST OPPORTUNITY.

B. PLYMOUTH ROCK COCKERELS, \$1.50 each.
S. C. BROWN LEGHORN COCKERELS, \$1.50 each.

BUFF COCHIN BANTAMS, \$5.00 per Trio. Choice laying hens of B. P. R. and S. C. B. L., \$10.50 per dozen. Eggs for winter laying 75 cents per 15. Buff Bantam eggs \$1.00 per 10. Book your orders for eggs now.

This is the last offer of Breeding Stock for 1906.

POWHTAN POULTRY YARDS, Chantilly Va.

J. HARRISON YATES, Prop.

BARRED

PLYMOUTH ROCKS.

AS GOOD AS THE BEST.

25 pullets for sale at \$1. each or \$5.50 for 6 or \$10.50 for 12 or \$21. for all. Eggs \$1. per 15, \$1.75 per 30 or \$5. per 100. Satisfaction Guaranteed. A. J. S. DIEHL, Port Republic, Va.

BARRED

Plymouth Rocks.

BRED FOR UTILITY AND BEAUTY.

Eggs \$1.00 per 15; \$2.50 per 45.—**OTTER PEAK POULTRY YARDS, G. D. Wingfield, Prop., Bedford City, Va.**

BERGER'S

BARRED PLYMOUTH ROCKS

bred for utility and beauty. Eggs from selected matings, \$1.50 for 15; \$2.75 for 30; \$4 for 45; Eggs from utility mating \$1 for 15; \$5 per 100. Your patronage solicited.—A. F. BERGER & SON, R. F. D. 3, Richmond, Va.

"AMERICAN BEAUTY" STRAIN

Barred Plymouth Rocks.

Farm raised stock. Eggs, \$2 per sitting of 15. Order early.—**PARKIN SCOTT Ashland, Va.**

Cockerels. Cockerels.

Fine, early hatched **BARRED PLYMOUTH ROCK** and **White Wyandotte**. Barred Rock pullets. S. C. B. Leghorn hens. A few Mammoth Bronze Turkeys yet.—**LANDOR POULTRY YARDS, Croxton, Va. Miss C. L. Smith, Prop.**

EGGS

from **WHITE HOLAND TURKEYS, \$2.00 per doz; \$15.00 per 100.**

S. C. **WHITE LEGHORNS, \$1.00 per 15 \$5.00 per 100.**

WHITE PLYMOUTH ROCKS, 75c. per 15; \$4.00 per 100.—G. W. MOSS, Guinea, Va.

ing, but the design is a desirable one both for this and for similar wool materials of immediate wear and also for the washable fabrics that will be in demand before many months, and which so many mothers will make during the midwinter season.

The dress is made with the fronts and back and is held in place at the waist by the novel belt, that is made with a separate front portion that is buttoned over into place. The sleeves are the full ones that make the most satisfactory of all for children's wear.



5241 Child's Russian Dress, 2 to 8 yrs.

When the dress is desired for boys the left side should be lapped over onto the right but otherwise there is no difference in style.

The quantity of material required for the medium size (6 years) is 3½ yards 27, 2¾ yards 32 or 2 yards 44 inches wide with 1¾ yards of banding.

The pattern 5241 is cut in sizes for children of 2, 4, 6 and 8 years of age.

We can supply these patterns at 10 cents each. When ordering, simply say "Pattern 5244-8" and it will be understood. Write plainly.

SOUTHERN PLANTER,
Richmond, Va.

RECENT SALE AT GLEN FARM.

Jno. S. Funk, proprietor of Glen Farm, has sold recently seven Polled Durham calves, nine Southdown sheep, and eleven Poland China hogs. Three of the calves were sold in this county, one in Albemarle, two went to North Carolina, and one to Maryland. Mr. Funk, by careful breeding and fair dealing has established a very large trade, extending over eight States, and scarcely a week passes that stock is not driven or shipped from his farm. His sales are larger than those of any other stock farm in the Valley and possibly in the entire State of Virginia.—Harrisburg Daily News.

EGGS FOR HATCHING.

BARRED, BUFF AND WHITE PLYMOUTH ROCKS; SILVER, WHITE, BUFF AND PARTRIDGE WYANDOTTES; BLACK NORCAS; BLACK LANGSHANS; LIGHT BRAHMS; PARTRIDGE COCHINS; WHITE AND BROWN LEGHORNS

Price, \$1 for 15; \$5 per 100; 2-3 hatch guaranteed.

A few more nice White and Brown Leghorns and some nice Cockerels of the different breeds for sale.—**OAKLAND POULTRY FARM, C. J. WARNER, Manager, Ruffin, N. C.**

CHICKENS AND EGGS

A few more handsome cockerels for sale. S. C. W. **LEGHORN** (Biltmore prize winner's strain) a bargain at \$1.00 each. 6 for \$5.00. Eggs for sale in season from S. C. W. L., B. P. R., and R. I. **REDS** at 75 cents for 15. 3 sittings for \$2.00. Satisfaction guaranteed.—**MRS. F. E. WILLIAMS, Charlottesville, Va.**

EGGS FOR SALE.

I am now booking orders for eggs from choice pens of **ROSE COMB WHITE WYANDOTTES, S. C. R. I. REDS** and **S. C. BUFF ORPINGTONS**. Write me for prices. Satisfaction guaranteed. Address, **FOREST PARK FARM, Charles W. Smith, Prop., Williamsburg, Va. Box 25.**

Barred Plymouth Rocks

exclusively; strong, healthy, vigorous farm raised, bred for laying. 75c. for 15 eggs. **WM. B. LEWIS, Irby, Nottoway Co., Va.**

EGGS FOR HATCHING

FROM

SILVER LACED WYANDOTTES.

It is not the PRICE but the QUALITY that is high.—Carefully selected eggs \$1.50 for 15.

EDGE-COMBE FARM, R. F. D. No. 1, Petersburg, Va.

"Money in Poultry."



Our new 1906 book tells how to make it. Tells how to treat diseases. Feed and care for poultry successfully. Illustrates and tells all about 40 varieties **FAMOUS THOROUGHBRED FOWLS**, with Low price on stock and eggs. Send 6c. in stamps to **JOHN E. HEAT-WOLE, Box 1, Harrisonburg, Va.**

WHITE Ply Wyandottes

S. C. Buff Leghorns

AND

Pekin Ducks.

If you want quality, give me your orders for Eggs for hatching, and I will guarantee satisfaction. My stock is second to none and bred for **UTILITY** as well as for **SHOW**. Eggs: \$1.50 for 15; \$2.50 for 30; **PEKIN** Duck Eggs, \$1 for 9.

SOME CHOICE COCKERELS FOR SALE AT **BAROAIN PRICES. W. O. RONDA-BUSH, Ugo, Va.**

BUFF ORPINGTONS

EXCLUSIVELY.

The World's greatest Winter layers. We breed the S. Comb Buff Orpington only, and of the best blood that we could procure in the U. S. Our birds are from imported fowls, and we have raised them and put no bird in our pens but the best specimens. We have 2 pens. Pen A is headed by 2 cocks. Sir Walter and Yellow King. Pen B is headed by 2 cockerels. Sir Chas and Bell Boy. Eggs, \$1.50 for 15 eggs; \$2.50 per 30 from either pen. Send for circular. Address and make all orders payable to B. O. POULTRY YARD, Rapidan, Va., R. F. D., No. 1.

ORPINGTON PLACE.

FORMERLY "OCCONEESCHEE."

Don't fall down by placing your ORPINGTON orders with breeders of many varieties. We are SPECIALISTS and our one breed (S. C. Buff Orpington) gets our entire care and attention.

15 Eggs from free range birds, \$1; 50 eggs \$2. 15 Eggs from Special Mating, \$2. 30 Eggs, \$5. Every shipment guaranteed to be true to breed, fresh, and at least 75% fertile. A few cockerels for sale at \$1.50 each. No hens or pullets to offer.

Place your orders ahead, to insure prompt delivery.—FAY CRIDUP, Mgr., Jeffers, Mecklenburg Co., Va.

S. C. Buff Orpingtons,**Mammoth Bronze Turkeys,**

We are now ready to book orders for EGGS for HATCHING

Most of our pens of Orpingtons will be headed by males from Cooke prize winning strains. Mated to hens of excellent breeding.

REMEMBER, WE GUARANTEE SAFE DELIVERY and THAT ALL STOCK and EGGS WILL BE AS REPRESENTED. We are giving away nearly enough in free premiums to pay express on stock or eggs. Write U. S. QUEENLAND FARM, Hagan, R. D. 2, Box 7, Va.

Glenview Orpingtons.**Single Comb Buffs Exclusively.**

Pairs, Trios, Pens at special prices this month. I pay all EXPRESS charges. Guaranteed eggs for hatching \$3.50 per setting. New Prairie State incubator and Brooder catalog free.

B. S. HORNE, Keswick, Va.

WHITE ORPINGTONS.

Young stock and eggs. BUFF ORPINGTON and White Wyandottes eggs only. A few OAKSADE M. B. TURKEY pullets left. 4 splendid Buff Orpington cockerels.

HUGUENOT POULTRY YARDS, Dublin, Va.

BLUE ANDALUSIANS.

PERFECTION IN POULTRY!

Majestic and Beautiful! Wonderful egg producers all the year. Non-sitters. Why waste feed on scrub stock?

Our stock from best blood in America, first prize winners Madison Square Garden (1905). Orders booked now. Eggs, best pens, \$2.00 15—V. H. COUNCIL, Warrenton, Va.

6 BLUE ANDALUSIAN

PULLETS OR YEARLING HENS WANTED. Must be first-class birds and prices right; also some Choice S. C. Buff Orpington early hatched Pullets or Yearling Hens and some Pure Mammoth Bronze and White Holland Turkeys, both Toms and Hens. Give age, weight and lowest cash prices singly, pairs and trios. Address, J. MARVIN HOBBS, No. 206 Paca St., Baltimore, Md.

CLUBBING LIST.

In this list will be found prices on papers, magazines and periodicals which are most called for by our readers. We have club rates with nearly all reputable publications, and will quote them on request:

Dailies.

	Alone.	With S. P.
Times-Dispatch, Richmond, Va.	\$6 00	\$6 00

	Alone.	With S. P.
Times-Dispatch (without Sunday)	4 00	4 00

	Alone.	With S. P.
News-Leader, Richmond, Va.	3 00	3 00

	Alone.	With S. P.
The Post, Washington, D. C.	6 00	6 00

	Alone.	With S. P.
The Sun, Baltimore, Md.	3 00	3 40

Thrice a week.

	Alone.	With S. P.
The World, New York	1 00	1 25

Weeklies.

	Alone.	With S. P.
Times-Dispatch, Richmond, Va.	1 00	1 25

	Alone.	With S. P.
Central Presbyterian, Richmond, Va.	2 00	2 25

	Alone.	With S. P.
Southern Churchman, Richmond, Va.	2 00	2 25

	Alone.	With S. P.
Harper's Weekly	4 00	4 00

	Alone.	With S. P.
Breeders' Gazette	2 00	1 50

	Alone.	With S. P.
Country Gentleman	1 50	1 75

	Alone.	With S. P.
Hoard's Dairyman	1 00	1 30

	Alone.	With S. P.
Horsemanship	3 00	3 00

Semi-Monthly.

	Alone.	With S. P.
Kimball's Dairy Farmer	1 00	75

Monthlies.

	Alone.	With S. P.
The Century	4 00	4 25

	Alone.	With S. P.
St. Nicholas	3 00	3 25

	Alone.	With S. P.
Lippincott's	2 50	2 50

	Alone.	With S. P.
Harper's Magazine	4 00	4 00

	Alone.	With S. P.
Harper's Bazaar	1 00	1 40

	Alone.	With S. P.
Scribner's	3 00	3 25

	Alone.	With S. P.
American	1 00	1 35

	Alone.	With S. P.
Cosmopolitan	1 00	1 35

	Alone.	With S. P.
Everybody's	1 50	1 75

	Alone.	With S. P.
Munsey	1 00	1 35

	Alone.	With S. P.
The Strand	1 00	1 35

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EXCLUSIVELY.

I am prepared to furnish Eggs for hatching in large or small lots, from vigorous, farm-raised stock, produced from standard strains.

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20

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Beauty, Size and Eggs

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From pure bred Duston strain.

EGGS, \$1.50 FOR 15.

No better to be had at any price, 20 spring cockerels for sale at reasonable prices. Write for prices.—ELLERSON POULTRY FARM, J. W. Quarles, Prop., Ellersson, Va.

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Eggs now ready. Great big Graves and Root males. Save years of time and trouble by starting right.

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Strong, healthy, vigorous farm raised stock bred for laying eggs. Chicks, strong and easily raised. \$1.00 for 15. Also M. B. TURKEY EGGS. 1,000-acre range.—MRS. M. C. McFADYEN, Cameron, N. C.

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Want an Indian Runner Duck and drake.

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Rhode Island Reds.

As good layers as Leghorns, as large and well shaped as Plymouth Rocks, and of beautiful markings. The newest and most desirable fowl now offered.

10 COCKERELS but no more pullets or hens for sale. Eggs from Pen No. 1, \$2.50 for 15; No. 2 \$1.50 for 15.

BUFF LEGHORNS, \$3 per trio; Eggs \$1 for 15.

BRONZE TURKEYS, not extra large but beautifully marked, extra prolific layers. \$7.50 a trio.

Young Toms \$3.00 each. Ready for shipment in January.—A. R. VENABLE, JR., Box 147, Farmville, Va.

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S. C. Brown and White Leghorns, White Wyandottes, and Barred Plymouth Rocks. Eggs \$1.00 per 15; \$1.75 per 30; \$2.75 per 60; \$5.00 per 100. RIVERSIDE POULTRY FARM, J. B. COFFMAN & SONS, Prop'rs., R. F. D., 19, DAYTON, VA.



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A fine lot of young birds to grade up a farmers mixed flock or to breed with the best of their kind.

No pullets to spare. Eggs for hatching, \$1.50 per 15, after March 1st.

Cockerels, \$1.00 and \$2.00 according to style. B. C. COOK, Crozet, Va.

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Extra good layers, Large Size.—C. A. STEBBINS, Broadcreek, Va.

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BUFF WYANDOTTES.

EGGS FOR HATCHING.

\$1 per 15; \$2.75 per 50; \$5 per 100. All eggs guaranteed fresh and true to name.

A few fine Cockerels at \$2 each.

Muddy Creek Poultry Farm. W. M. HEATWOLE, Hinton, Va.



Golden Wyandottes.

A few nice Roosters of this choice breed for sale cheap.—W. H. ADKINS, Swoope, Va.

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WINTER LAYERS.

Eggs from best matings, \$1.00 per 15. Miss KATIE THOMPSON, Neverlet, Va.

A GOOD WORD FOR THE PLANTER AND GOOD ADVICE FOR FARMERS.

Editor Southern Planter:

The long lists of valuable articles that have appeared in your Journal during the past few years in the interest of scientific farming, should certainly be appreciated by everyone who desires to see greater strides and achievements made among the farmers of our south land. While we feel sure the great work of The Planter is being felt and seen on many farms, yet we are confronted with so many hindrances on the path of successful farming, that people as a whole are too prone to give up and drift back into the old worn-out methods of our fore-fathers practiced a century ago. We fail to apply the teachings of progressive farming as taught by our most scientific men and as a consequence, we are "failures" pure and simple and each year finds us in the same old rut with no progress made in any line whatever. Of course no one is to blame but the farmers themselves. We regret to have to say, nevertheless, we believe it a fact, that less intelligence is practiced by our southern farmers than most any people of our country. Diversity of crops is limited to only a few, we idle away the winter months and forget this is the time to prepare our lands for the next crop by subsoiling, liming and preparing manures and a thousand other things that are left undone till spring. There is work for the farmer the entire year and the sooner he realizes it, the better for him.

We are exceedingly glad to note great improvement in stock, particularly in hogs among the farmers in our immediate section. The best strains of Poland-Chinas, Berkshires and Duroc-Jerseys are to be found on most of our farms and since the introduction of these pure strains, we are raising enough meat for our home supply and some to sell. These pure strains of swine brought also, better pastures, such as Bermuda sods and we bespeak for our neighbors, better times just ahead.

We see diversity of crops practiced more and more each year and a more liberal use of the cow-pea on our worn-out lands. Our farmers subsoil a great deal more and are learning to cultivate their lands level, and we trust in the near future to see indeed a new South, a more prosperous people, a more intelligent class of farmers.

May the time soon come when the great work of The Southern Planter can be seen on every hilltop and in every dale. W. F. SMITH.

Marion Co., S. C.

We appreciate very much this generous tribute to our work and are greatly rejoiced to know that good results are beginning to be seen. If farmers would only carry out our friend's suggestions and observe the



Poplier Hill Poultry Farm

SILVER LACED WYANDOTTES

EXCLUSIVELY.

Fresh eggs for hatching from high scoring birds \$1 per 15; \$3 per 100. Choice Cockerels \$1.25 and \$1.50 females \$1 each. Satisfaction guaranteed to every customer.

Dr. H. H. LEE, Prop., R. F. D. 4 LEXINGTON, VA.

FIRST CLASS

EGGS AND STOCK

My prices will please all as will the quality. Some first prize cocks head my flocks. BUFF ORPINGTONS, WHITE and BROWN LEGHORNS, GOLDEN, SILVER and WHITE and SILVER PENCILED WYANDOTTES, S. S. HAMBURG, BLACK LANGSHANS, BLUE ANDELUSIANS, and S. C. R. I. REDS. Won seven 1sts on my S. P. WYANDOTTES; 1st and 2nd hen; 1st pullet. O. E. SHOOK, R. F. D. 1, Waugh, N. C.

S. C. B. Leghorn

Cockerels; limited number of pure-breds; none better; \$1 to \$1.50 for quick orders; Eggs, \$1 for 15; orders being booked, \$3 to 4 CARS RED CEDAR FOR SALE.—CEDAR RIDGE FARM, W. S. Guthrie, Prop., R. F. D., 2, Troutville, Va.

S. C. Brown Leghorn

Eggs, 75 cents for 15. Book your orders now for Spring Delivery. Special care given to each order. Satisfaction guaranteed. MEHERRIN POULTRY FARM, Branchville, Va.

The manager of the above farm is well-known to me and is thoroughly reliable. S. B. COGGIN, Agt., Southern Express Co.



EGGS FOR HATCHING

from six leading varieties at 1. per 15; \$1.75 per 30; \$2.75 per 60; \$5.00 per 100. S. C. WHITE and BROWN LEGHORNS, BARRED PLYMOUTH ROCKS, Rose and S. C. Rhode Island Reds and White Wyandottes. VALLEY VIEW POULTRY YARDS, J. D. GLICK, prop'r, Dayton, Va., R. F. D., No. 19, Box 41.

LEGHORNS

Pure-bred S. C. B. Leghorns at 75 cents each, reduction if ordered in large numbers. Eggs of same \$3.00 hundred.—MRS. A. W. DAVIS, Blanton, Va.

BLACK MINORCAS.

Eggs for sitting in season, from the best strains of Black Minorcas, at \$1.00 for 15 and \$5.00 per 100 eggs.—A. C. THROCKMORTON, Rapidan, Va., R. F. D. 1.

TEN EGGS FREE

Pure-bred S. C. WHITE LEGHORNS, \$1.00 for 15, but will give ten extra for the next 30 days to introduce my flock. Will ship eggs when wanted.—J. R. PACE, Oxford, N. C.

Muscovy Ducks.

Very fine large Muscovy Ducks, \$2.50 per pair. Also a few White Plymouth Rock Cockerels choice breed. Mrs. S. Y. GLIAM, Church Road, Va.

FOR TURKEYS SALE.

The Celebrated MAMMOTH BRONZE, bred by the best Poultry Yard in the East. First orders, first choice of birds. FIEDMONT POULTRY PLACE, Miss. E. Calle Giles, Prop., Whittles Dep., Va.

PURE-BRED

BRONZE TURKEYS.

Mammoth in size, correct in plumage; individually the best we have seen. Foundation stock from two of the best yards in the country. Prices very reasonable. W. G. HUNDLEY, Worlds, Va. Dog and chicken fancier. Sherwood Chickens, M. B. Turkeys, English Setters and Pointers.

MAMMOTH BRONZE TURKEYS.

Pure-bred, Finest Individuals; May hatched Toms weighing from 20 to 30 lbs.; price \$4.50; hens, \$3.50, f. o. b. here, cash with order. For further particulars write to J. EDGE FARRIS, Red Hill, Va.

MAMMOTH

BRONZE TURKEYS

from prize winning strains. SILVER LACED WYANDOTTE and BARRED PLYMOUTH ROCK Fowls. ENGLISH BERSHIRE pigs. Just weaned. Reasonable prices and satisfaction guaranteed.—J. G. BUFORD, R. F. D., No. 2, Dublin, Va.

MAMMOTH BRONZE TURKEYS

perfect beauties, large size strictly pure-bred Toms \$4.00, Hens, \$2.00, White WYANDOTTE COCKERELS, \$1.00 each; WYOF strain, fine birds.—MRS. N. E. BLANTON, Blantons, Va.

INGLESIDE POULTRY FARM.

Bronze Turkeys

For Sale—A Choice lot of Toms \$5. Hens \$2.50 to \$3. Crad and on car. Prompt shipment.—Address: (MRS) S. H. ANDERSON, Blaker Mills, W. Va.
Farm near Anderson, W. Va., on C. & O. R. R.

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BRONZE TURKEYS

EGGS in Season.
PLYMOUTH ROCK COCKERELS
G. W. BARBOUR, Somerset, Va.

MAMMOTH

Bronze Turkeys

heavy weights, fit to show at Madison Square.
LESLIE D. KLINE, Vaucluse, Va.

N. B. TURKEYS, B. P. ROCK and N. P.

DUCK EGGS. Also, S. C. B. Leghorns hens.
W. B. GATES, Ettricks, Va. R. F. D. 1.

PEKIN DUCK EGGS

for sale at 10 cents each. Rankin strain direct, no shipment less than a sitting.
M. L. WEST, R. F. D. 5, Richmond, Va.

Angoras, Shetlands.

MIDWOOD FARM - FREDERICK, MD.

advice given in The Planter, they would soon see prosperity.—Ed.

UNBUSINESSLIKE FARMING.

The layman can hardly realize the lack of system that prevails on the average farm. Drainage is little thought of on the lowlands, crops are rotated only as chance determines, and probably not one farmer in a hundred can tell what enterprise on his farm and under his conditions is the most profitable. In no other business is it likely that men can be found with \$10,000, \$20,000 or \$50,000 investments who never pretend to keep books of the business. Farmers' books are too often kept in this manner,—gain, money in the bank; loss, money borrowed. The writer once argued this question of keeping books with a well-to-do American farmer, who finally concluded his argument by saying, "Farming ain't all keeping books, by a long shot." Truth lies in the argument, but keeping books is not all there is to manufacturing furniture or transporting freight, and yet it must be a valuable accessory or it would have been discarded years ago.

There are still thousands of farmers in the middle West who do not follow the markets, who rarely, if ever, stop to consider the relation between prices of feeds and prices of beef and pork. Hogs are fed because "there is money in hogs," and many an operation on the farm is done according to some preconceived notion. The writer knows a German farmer in western Minnesota who has a beautiful, clean farm, and is evidently prosperous. While watching him feed his hogs one day, this conversation took place: "How old are those pigs?" "Sixteen months." "Why don't you sell them?" "Well, I don't like to sell a hog until he weighs up good and heavy." Further conversation revealed the facts that corn was worth forty-two cents per bushel and pork four dollars per hundred weight, live weight. When asked if the pigs he was feeding were gaining enough to equal or exceed the value of the corn, and pay him for his labor, he realized that each bushel of corn had not to produce about twelve pounds of pork to yield him any profit. Knowing that his pigs were not gaining the half of that amount, he decided to sell both pigs and corn.—American Monthly Review of Reviews.

ABRAHAM LINCOLN'S MAXIMS.

The following were Abraham Lincoln's maxims for longevity: "Do not worry; eat three square meals a day; say your prayers; think of your wife; be courageous to your creditors; keep your digestion good; steer clear of billiousness; exercise; go slow and easy; may be there are other things that your special case requires to make you happy, but, my friend, these, I reckon, will give you a good life."

College of Agriculture

... AND ...

Experiment Station, BLACKSBURG, VIRGINIA.

Orders can now be taken for BERKSHIRE PIGS of both sexes for immediate delivery. These pigs will be registered and transferred to buyer.

We have a few bull calves of the following breeds—HOLSTEIN, JERSEY and GUERNSEY, which we can sell for immediate delivery. Orders can be taken for bull calves of the ANGUS and SHORTHORN breeds for spring delivery.

We can now offer 2 Shorthorn cows and 3 heifers; one of the cows has calf at foot, and one of the heifers has been bred.

A few DORSET EWES are left, some of which have already lambed, and will be sold with their lambs at very reasonable prices.—JOHN R. FAIR, Agriculturist.

Cottage Valley

Offerings for February.

A beautiful cream colored mare 15½ hands high, weight about 1,000 lbs. rides well, nice gentle driver, perfectly reliable in all harness. Compactly built and easy to keep. Will sell cheap. She is six year's old and a nice ladies' drive.

Several 13-15 GRADE ANGUS Bull Calves ready for service—will make fine bulls for grading up a herd.

A fine lot of thoroughbred O. I. C. pigs, both sows, at reasonable prices.
BULL CALVES out of Shorthorn Cows, by Angus Bull.

Several registered Angus bull and heifer calves.

W. L. Wyandotte Eggs, \$1 for 15.
W. M. WATKINS & SON Prop's, Saxe, Va.

LIVE STOCK WANTED.

Few head of grade on full bred Jersey and Holstein cows and heifers, good milkers; team of farm mares; B. P. Rock pullets, and hens not above 2 years.

Want utility stock all through and will pay no attention to fancy breeding or prices. Prices delivered Bedford City, Va., Address, "Stock" Box 65, Pittsburg Pa.

SELL OR TRADE!

Stoke Pogs Jersey bull registered, 4 years old, is Perfect.

Stoke Pogs-St. Lambert bull calf, 4 mos. old, A Beauty.

Protection Duroc Jersey boar, 3 years, registered, 500 to 600 lbs., best hog in Virginia.

B. P. R. Eggs, \$1.25 for 13, most fashionable strain.—THE CEDARS FARM, Middlebush, Va.

Homer Pigeons,

Bred of choicest selected stock from Plymouth Rock Squab Co., \$1 per pair.

C. DE BRUYN KOPS, Wake, Va.

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1906 IN THE STUD 1906
The Magnificently Bred Trotting Stallion.

Red Court 35712.

Rich Red Bay, 15.3 hands, weight 1175 lbs., foaled 1902. Hind ankles white, star in forehead. Individually, a horse of grand finish, plenty of substance, fine disposition, and level headed at all times. Two-year-old trial 2:36.4, last half 1:11, and goes without weight or boots. Sired by "Red Chute" 26955—1st dam Lemce by the great "Jay Bird," 2nd dam, "Katia Bells" by Bow Bells, he by Electioneer, out of "Beautiful Bells," the greatest brood mare of her century. 3rd dam "Fairwater" by "Lord Russell" full brother of "Maud S," etc.

His sire "Red Chute" is the sire of 7; 4 being Futurity money winners, (the only stallion with this distinction), and the sire of Oxford Boy, Winner Kentucky Futurity 1901, at 2 years, taking record of 2:20.

Red Court has the world's most famous producing and winning blood close up, has 7 producing dams, and in the first 4 generations of his breeding, there is not a sire or dam that is not a winner or producer.

I bought this horse of his breeder, Mr. W. W. Estill, Lexington, Kentucky, intending to race him, with the view of giving him a fast record before offering him in the stud. I have since concluded to offer him to the public first, for the season of 1906, and send him down the circuit in 1907. Barring accidents 2:10 will never stop this fellow and I want him to have some colts coming on as he will not be bred while in training. He was bred to 4 mares last fall, all of which are in foal, and as he is a young horse his book will be limited. Send for cut and tabulated pedigree of "Red Court" and it will carry its own argument of conviction that in producing and performing blood lines this horse is equalled by few and surpassed by none. For terms, address: W. W. COLLINS, Houston, Va., care Bank of Halifax.

SCOTCH COLLIES

FOR SALE.

Give us your order for a choice Collie pup. Colors, sables and blacks with fancy markings. Eligible to registry, tracing to such Ch. dogs as Christopher, Ormskirck Wellington, Ormskirck Emerald and Doon Marvel. Parents trained drivers.

Address: H. H. ARBUCKLE, Edgewood Stock Farm, Maxwellton, W. Va.

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for sale by W. W. HOBSON, Ballsville, Va.

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Registered JERSEY BULLS and COWS, Registered BERKS WIRE Boars, Thoroughbred PIGS, Grade BULLS and HEIFERS. One farm horse and one combined buggy and saddle horse.

JAS. N. SAUNDERS, Brandywine, Virginia.

TO AVOID IN BREEDING

we offer for sale cheap, one of the finest BERKSHIRE boars in the State.

DALKIETH STOCK FARM.

South Boston, Va.

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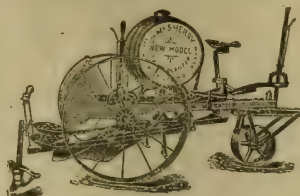
AND

WHITE PLYMOUTH ROCK

fowls for sale.—J. F. LEACH, Jr. Littleton, N. C.

TRANSPLANTERS.

We take occasion to say a few words with reference to the Transplanter business, which is now growing very extensively both in the Tobacco Districts of the South and the Gardening Sections, these Transplanters being exceedingly useful for transplanting



tobacco, tomatoes, cabbage, sweet-potatoes, strawberry plants, etc. These machines put in the plants more uniformly than can be done by hand or by laborers, supplying the proper amount of water at the roots of the plant, packing and firmly surrounding the plant with goodly dry ground at the surface. With one of these machines properly operated a Farmer assisted by his two children, either boys or girls, can successfully transplant four or five acres a day easily and as above stated doing the work much better than by hand.

Fetzer & Co., of Middletown, O., make an unusually successful Transplanter and they are also old time advertisers with the Southern Planter.

DID YOU GET ONE?

About a year ago this paper printed a notice to readers that a new and unique veterinary book had just been published and was being sent out free upon request by one of its advertisers. The edition was two hundred thousand copies, and we are now informed that this vast number has been exhausted by the requests that have come from all parts of the country, and that a new edition is ready for distribution. If you did not get one you have a chance now. The book is "Fleming's Vest-Pocket Veterinary Adviser," durably bound, indexed and illustrated, and contains a great volume of veterinary information boiled down to vest-pocket size. Over a hundred subjects are covered, and the books is a good one to have for reference. Address Fleming Bros., 280 Union Stock Yards, Chicago, and mention this paper.

"Mr. Smith had a hard time to get his daughters off his hands."

"Yes, and I heard he has to keep their husbands on their feet."

An Atchison husband hovered at death's door so long his wife remarked that she supposed he was having his usual trouble finding the keyhole.



ONE FINE JACK
for sale; nine years old, weight 900 lbs. good dresser, no stallion required. Will sell for half real value. Come and see him. For further particulars apply to W. K. SQUIRES, Brooke, Va.



KENTUCKY JACKS and STALLIONS.

100 head Jacks, Jennets, Saddle and Trotting stallions. We won more premiums on our jacks at the Kentucky State Fair 1905, than all other Breeders combined. Our saddle stallions are sired by

7 of the greatest saddle stallions in Ky. F. COOK & CO., Lexington, Ky. Branch Barn, Marion, Kansas.



KENTUCKY JACK FARM.

A fine lot of big black well-bred KENTUCKY JACKS, also IMPORTED SPANISH JACKS selected by me personally from the best breed of Jacks in Spain. We furnish a certificate of pedigree with each imported Jack. Come and see me or write for prices. I can please you. JOE E. WRIGHT, Junction City, Ky.



JACKS, JENNETS and STALLIONS.

Fine JACKS a Specialty. 3 to 5 year old past; write for what you want. Send 2c stamp for Catalogue. W. E. KNIGHT & CO., Nashville, Tenn., R. F. D. 5.

Young Jack Stock.

50 head now on hand and for sale. I make a specialty of breeding and selling large, well bred stock. Write me.—I. S. TEVIS, Shelby City, Ky.

MALTESE JACK.

for sale or exchange; 6 yrs. 70 lbs. Guaranteed one two horse power and saw mounted. W. S. MOTT, Dixondale, Va.

3 BACK REGISTERED

PERCHERON STALLIONS.

BRILLIANT MONARCH Jr., good breeder, superiorty, quality and symmetry, 16½ hands, 13 years old, sound, clean-cut head and neck and heavy flat bone; can't use him longer. Two Colts, 2 years; past, sired by above, well grown, good style and heavy, flat bone. Prices right to an ardent purchaser. Thos. R. Smith, Lincoln Loudoun Co., Va.

Registered

PERCHERON STALLION.

SULTAN 34606 for sale; will be 3 years old April next, weighs over 1,500 lbs black in color, sound fine form and style, and all right. Will sell cheap for quick sale. Address: F. B. ALBERT, Roanoke, Va., R. F. D. No. 4.

PURE BRED

PERCHERON STALLIONS

for sale at reasonable prices; as good as can be found anywhere; especially desirable for our Southern States as they are acclimated; no risk of disease by purchaser. D. T. MARTIN, Salem, Va.

GALLOWAYS.

I have for sale, 5 pure-bred Galloway Bull Calves, 7 to 9 months old; 3 of them bred by me, at \$50 each, and 2 bred by O. H. Swigart of Ill., (the foremost Galloway breeder in America) at \$100 each, all good ones. Will be kept until grass comes without extra charge, if Purchaser desires.

N. S. HOPKINS, Gloucester, Va

AYSHIRE BULLS.

WE will sell a registered AYSHIRE BULL CALF, at shipping age, for \$25 to parties in Virginia, Maryland or D. C. who have herds of grade Dairy Cows. The Ayrshire cross on grade Jersey, Shorthorn or local stock, greatly increases milk production.

8 calves, ranging in age from 18 down to 1 month, now ready, will deliver according to age as orders come in. Better order soon and get advantage of age.—MEL-ROSE FARM, Casanova, Va.

Holstein-Friesian

BULL CALF FOR SALE, born Dec. 14th, 1905. A grandson of the great cow A. & G. Inka McKinley, 26½ lbs. butter in 7 days; 80 lbs. milk a day, over 4% fat.

Richly bred on both sides. Price \$35.00. F. o. b. Registered and transferred, if taken soon.—W. H. NEWMAN, Woodstock, Va.

DEVON HERD, HAMPSHIREDOWN FLOCK
ESTABLISHED 1894. ESTABLISHED 1880.

DEVON CATTLE

BULLS and HEIFERS,
Hampshire Down Sheep,
RAMS and EWES.

ROBT. J. FARRER, Orange, Va.

Hereford Bulls

Registered young stock for sale. HIGH GRADE HEREFORDS of both sexes; also, WANTED some high grade SOUTHDOWN EWES. WM. C. STUBBS, Valley Front Farm, Sassafras, Gloucester county, Va.

PURE-BRED

HEREFORDS.

3 cows 2 heifers and 2 young bulls for sale. Prices low. Correspondence solicited. E. J. HARRISON, Flanagan's Mills, Va.

GOOD HOUSEKEEPING.

Vegetable Soup.

Divide a shin piece into three parts. Put one piece into a gallon of water and cover close, let it boil slowly for two hours. Slice into thin pieces two cups of turnips, one cup of carrots, two cups of Irish potatoes, one cup of cabbage and one cup of celery roots and stalks. Put these into a pan with a piece of butter and let them cook for fifteen minutes over a hot fire. Do not let them brown. When they are nearly tender, pour a little of the stock over them and mash before putting them into the soup pot. Mix all together and add a sliced onion and boil for an hour, thickened with a large spoon of flour rubbed smooth in a little cold water. Season with pepper, salt and a dash of cayenne.

Rabbit Pie.

A rabbit should be carefully prepared for cooking. After it is skinned, wash in several water, adding a little piece of soda to the last. Then let it stand in clear water for a while. When it is ready to cook, dry thoroughly on a cloth. Cut it into small pieces and lay it in a pan, nearly cover with boiling water, and let it stew until perfectly tender, adding pepper, salt, a slice or two of onion and some chopped celery. When it is done take out the rabbit and add to the liquor a cup of rich milk, thicken with two tablespoons of flour creamed with two tablespoons of butter. Line a deep pie pan with rich pastry and arrange the rabbit in it, pour the gravy over it and sprinkle a dust of flour over the top before putting the top crust on. It is best to let the filling get cold before putting on the top crust and always cut a hole in the middle to let the steam escape.

Baked Irish Potatoes.

Pare and slice the potatoes and let them stand in cold water for an hour, then arrange them in a baking pan in layers with a sprinkle of stale crumbs between and salt and pepper to taste, let the crumbs form the top layer and over that put small pieces of butter and enough milk to moisten the whole, let it bake slowly until the potatoes are tender, it will take about an hour.

Snow Pudding.

Soak a box of gelatine in two cups of cold water for an hour. Shave the rind off two large lemons and put with the gelatine, add two cups of sugar and a quart of boiling water, stir until the gelatine is dissolved and add the juice of one lemon. Set it aside in a cool place until it begins to congeal then beat with the egg whip for ten minutes and add the beaten whites of six eggs, beat until almost hard and then turn it into the blanc-mange

GROVE FARM

R. F. D. Cockeysville, Md.
First Prize Herd
Guernseys

at Timonium and Hagerstown, Maryland.
(only place HERD Shown).

BULLS ONLY FOR SALE

OUR BERKSHIRES.

were unbeaten at Timonium (Baltimore County), York Pa., and Hagerstown, Maryland, the only places shown in 1905. PIGS OF BOTH SEXES for sale.
C. & P. Telephone and Telegraph, 431
Lutherville, Md.

JAS. McK. MERRYMAN.

JERSEYS.

TEN HEIFERS fresh and to be fresh, at \$50 each.

YOUNG BULLS under 1 yr. entitled to registry, \$30 to \$40.

BULL CALVES not entitled to registry, from cows as good as any in the State, \$10 each.

ONE BULL, 16 mos. old, equal to any in breeding, dam and granddam gave over 20 lbs. butter per week, at \$100.

A. R. VENABLE, Jr., Farmville, Va.

Swift Creek Stock and Dairy Farm

Has for sale a large number of nice young registered J. & C.

JERSEY BULLS And HEIFERS.



None better bred in the South. Combining closely the most noted and up-to-date blood in America. Bulls 4 to 6 months old, \$75. Heifers, same age, \$35. POLAND CHINA PIGS, \$5 each. Send check and get what you want.

T. P. BRASWELL, Prop., Battletown, N. C.

THOROUGHBRED

Berkshire Boars, Jersey Bull Calves, Dorset Buck Lambs.

Sire of Calves, FLYING FOX 65456, son of Flying Fox who sold for \$7,500 at the Cooper sale 1902.

All stock in best of condition and guaranteed as represented.

F. T. ENGLISH, Centerville, Md.

ROSE DALE HERD....

Aberdeen Angus

Top notch young registered Bulls our specialty. A few heifers to offer with bull not skin. We send out none but good individuals. Correspondence and inspection of herd invited. ROSE DALE STOCK FARMS Jefferson, Va.

MONTEBELLO HERD

Aberdeen Angus Cattle.

FOR SALE—Registered Bull Calves from 3 months old up.

L. H. GRAY, Orange, Va.

WHITE MARSH FARM.

To change Sires we offer our REGISTERED SHORTHORN BULL, YOUNG DAKOTA III, blood red, weighs 2200 lbs. Also 3 yearling Shorthorn Bulls and 3 Bull Calves from Registered Stock.

Some good BERKSHIRE PIGS, Baltimore Strain; M. B. Turkey, toms and hens, large size.—WM. J. BURBEE, White Marsh, Gloucester Co., Va.

SHORTHORNS.

From Registered Stock.

2 heifers, 5 mos. old, 1 18 mos old, 1 bull 5 mos. old, cheap if sold at once. Also some

POLAND CHINA PIGS

10 weeks old. Stock all in

good shape. Now is the time to get bargains. Write or call on A. J. S. DIEHL, Fort Republic, Va.

Springwood Short Horns.

Red and white Bull Calves 6 to 9 mos. old. Also a STALLION COLT 19 mos. old weighs over 1100 lbs. Sired by "Hereman" the German Coach Stallion, weighing 1500 lbs.

I will sell this colt, also his sire. A FEW POLAND CHINA BOAR PIGS. The above at Bargain prices. Come or write.—WM. T. THRASHER, Springwood, Va.

ELLERSLIE FARM—

Thoroughbred Horses

AND SHORTHORN CATTLE,

Pure Southdown Sheep

and Berkshire Pigs.

FOR SALE, R. J. HANCOCK & SON,
CHARLOTTESVILLE, VA.

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Insure Your Buildings.

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Write for booklet giving plan and explaining how you can become a member of the . .

Farmers Mutual Benefit Ass'n,

thus securing cheap fire protection. Property insured, \$400,000; average cost per \$1,000 per year \$4.50. Memberships and risks limited to Eastern Va.

CHAS. N. PRIEN, Gen. Agent, Virginia Division,
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ORGANIZED JANUARY 9, 1899.

Make Your Idle Money Earn You Interest

Write the FIRST NATIONAL BANK of RICHMOND, VIRGINIA for information concerning its certificate of deposit, so arranged that one per cent. may be collected every FOUR MONTHS through your nearest bank or store.

Our experience proves this form for savings to be the most satisfactory plan yet devised for deposits of \$100.00 or more.

Our Capital and Surplus is

ONE MILLION DOLLARS.

JOHN B. PURCELL, President.

JNO. M. MILLER, Jr., Vice-Pres. & Cashier.

CHAS. B. BURNETT, Assistant Cashier.

J. C. JOPLIN, Assistant Cashier

moulds and set it in the refrigerator. Make a custard of the yolks of the six eggs, three pints of milk and a cup of sugar, flavor with vanilla, and when you serve the pudding pour this around it.

Lemon Pie.

Three eggs, whites and yolks, beaten separately, three tablespoons of cornstarch dissolved in a very small quantity of cold water. Three cups of sugar added to the yolks of the eggs, three heaping tablespoons of butter creamed, the grated rind and juice of two lemons, three cups of boiling water poured on the cornstarch, stir vigorously and let it get cold before adding the other ingredients. Add the whites last and bake in open crusts.

Variety Cake.

This is troublesome but it pays. Take two cups of sugar and cream with one cup of butter, add one cup of milk and four cups of flour, lastly the whites of eight eggs, and season with bitter almond; bake in layers. Filling: Make a boiled icing with four cups of sugar, one cup of boiling water, boil till it threads and remove from the fire and pour very slowly over the beaten whites of four eggs, beat till it begins to harden, spread some of this over one of the layers of cake and sprinkle with finely cut raisins, and chopped pecans, put a layer on this and spread with the icing as before and on this put shredded citron and chopped dates, another layer with the icing on it with chopped figs and walnut meats, put on the last layer and ice the whole decorating with whole walnut and pecan meats.

Dried Apple Custards.

Use the sun-cured apples if you possibly can, they are much better than the others. Stew them done and take three pints of apples, five cups of sugar, eight eggs, beaten separately, one cup of milk, one cup of flour, one cup and a half of butter creamed, mix all these ingredients together, leaving out the whites for meringue. Bake in open crusts in a rather slow oven; when done, spread a meringue made of the whites and eight tablespoons of sugar, seasoned with lemon. They are so good that you can't make too many of them, and you do not recognize the dried apple.

CARAVEN.

FARMERS' INSTITUTE AT PURCELLVILLE, VA.

The farmers' Institute held at Purcellville, in Loudoun county, on the 17th and 18th Jan'y., was a great success. The audience room seating about 200 was crowded throughout the two days' session and the speakers were listened to with the closest possible attention. Purcellville is located

Poland China Pigs

Some fine ones, young sows bred, young boars and pigs. No better breeding in the United States. My herd boars have been sired by J. H. Sandes, Lookmeover. Perfect 1 Know, Proud Perfection, Corrector and High Roller, the greatest prize winners of the breed—my sows have been as carefully selected.

BRED POLLED CATTLE. Fine good young bulls. Will sell a few cows and heifers. ARROWHEAD STOCK FARM, Charlottesville, Va., SAM'L B. WOODS, Prop'r.

POLAND CHINAS

with the business hams. The best to be found at farmer's prices. Herd headed by two great Boars. The Sows are great producing matrons, being bred from great producers. Boars ready for service. Glits open and bred. Fall pigs that are dandies. Young M. B. Toms (about 20 lbs.) at prices that will move them. A GRAHAM SONS, Overton, Albemarle Co., Va.



HIGH CLASS

Poland Chinas.

Sunshine and Perfection Strains. Boars ready for service, Glits bred for Spring litters. Choice Pigs of both sexes from 4 to 6 months old, mated for breeding, that are no akin. All eligible to Registry and first class. Prices low, write stating what age is wanted. Eggs for hatching from choice Buff Plymouth Rocks, \$1 for 15.—E. T. ROBINSON, Lexington, Va.

POLAND-CHINA BARGAINS.

12 Choice Sept. Pigs, 50 to 75 lbs. each at \$6 to \$7. Pedigree furnished with each animal. 1-8 month P. C. Boar, well grown and a beauty at \$15. He will weigh 160 to 175 lbs. Booking orders for Mch. Pigs at \$5 each.—ORPINGTON PLACE, Fay Cradup, Mgr., Jeffress, Mecklenburg Co., Va.

Registered P. China Berkshire

C. Whites. Large strain All ages mated not akin. 8 week pigs. Bred sows, Service boars, Guernsey calves, Scotch Collie pups and poultry. Write for prices and free circulars. P. F. HAMILTON, Cochraneville, Chester Co. Pa



ORCHARD HILL PURE-BRED

POLAND-CHINAS.

Taking orders now for spring pigs; one yearling Guernsey bull, one Granddame tested for advanced registry 345 lbs. butter in one year.—F. M. SMITH, Jr., R. F. D. 4, Charlottesville, Va.

EXTRA FINE

Poland Chinas.

Lampighter, Perfection and Sunshine stock. Write for Particulars.

C. H. MILLER, R. F. D., 3, Richmond, Va.

WEST RUN HERD

POLAND CHINA HOGS.

From the greatest Western winning strains, unsurpassed in type and breeding. Young boars and sows and pigs of both sexes. Satisfaction guaranteed.

R. S. BEATY, Reliance, Virginia.

POLAND-CHINA SWINE.

G. W. BARBOUR, Somerset, Va.

WALNUT GROVE FARM,

SHAWSVILLE VA.
Orders now taken for pure bred

BERKSHIRE PIGS.

to be delivered after December 1st. None but the best will be shipped, others go to the pen. One two year old Hereford Bull, registered, for sale, a perfectly formed Animal, and as well bred as America's best. Address all communications to W. J. CRAIG, Mgr., Shawsville, Va.

GLENBURN

BERKSHIRES.

In this herd are twelve royally bred IMPORTED animals. Also selected American bred stock. Our IMPORTED boars Highside Royal Victor and Loyal Hunter won first at Eng. Royal and Va. State Fairs, respectively. A splendid lot of pigs of gilt breeding now ready for shipment, Dr. J. D. KIRK, Roanoke, Va.

BERKSHIRE BOARS.

I offer some excellently choice young boars for sale; by Imported Danesfield Tailor, 76490 and out of Biltmore bred sows. It will be hard to find better or cheaper stock

HENRY WARDEN, Fredericksburg, Va

Berkshires.

We offer some Royal bred pigs from Lissy of Biltmore, Hurricane, 4th of Biltmore and Highside of Biltmore, at moderate prices to get them into good herds.

We also have a rattling lot of fine Duroc Jerseys, young boars and gilts.—B. E. WATSON, Stuarts Draft, Va.

BERKSHIRES.

Very fine 5 months boars, from registered daughters of Elmwood Chief of Biltmore and Commander's Beauty; Sir, Mason of Biltmore II.

Three latter purchased from Biltmore Farms. Also young boars from two bred Berkshire sows, bought Biltmore sale August 22d, 1905.—ROBERT HIBBERT, Charlottesville, Va.

Berkshire Pigs

of the best breeding, for sale; fine individuals, prices right. Also M. B. TURKEYS, a few B. P. ROCKS and S. C. B. LEGHORN Cockereis for sale. J. T. Oliver Allens Level, Va.

DUROC-JERSEY PIGS.

We now have the blood of the great ORION and OHIO CHIEF, besides the other great WESTERN WINNING STRAINS. We can sell you boar or sow pigs for the most fashionable crosses. The Duroc is the coming hog and has come to the front to stay. Drop us a card and we will tell you why.

LESLIE D. KLINE, Vaucluse, Virginia.

Salt Pond Herd.

DUROC JERSEYS.

PAUL J. 21629, son of Oom Paul, head of herd. Sows by Red Kover, Jumbo, Longfellow and other noted hogs. A choice lot of Pigs at reasonable prices, ready to ship.

S. A. WHITTAKER, HOPESIDE, VA.

In the center of a rich agricultural country, dairying being one of the leading industries. It is no wonder therefore that the soils are increasing in fertility and that the lands are high-priced; in many instances costing \$100.00 an acre. The enterprise of the people in this community is shown by the fact that they have just formed a company to operate a large canning factory with a capitalization of \$24,000.00. It is interesting to know that this stock is held by the farmers themselves and that the business will be run and managed in their interest. As soon as our farmers learn to not only grow the product, but to manufacture it in so far as possible and to cooperate sufficiently to enable them to put their products on the market and get a fair share of the price the consumer pays, the better it will be for them. Therefore, it is no wonder that there is an increasing sentiment in favor of agricultural education and a growing interest in all scientific work that will enable the farmer to improve his practice and reduce the cost of production.

One of the interesting features of this meeting was an exhibit of corn. There were a large number of most excellent samples on exhibit. The first prize corn was grown by Mr. Cochran, of Hamilton. The ears shelled out 16½ ounces, yielding 1123 grains, and the cob weighed 2½ ounces. This corn is white and Mr. Cochran has given some attention to its selection for years past. It was an excellent sample and will do credit to any community. It is a well known fact that home grown corn is more likely to give satisfactory results in a community than untried varieties brought in from a distance. Therefore, Mr. Cochran's work is to be commended and the people of his section will do well in many instances to purchase seed corn from him.

Another excellent exhibit of white corn was made by Mr. Embry, which shelled out 15½ ounces of grain per ear; the cob weighed 2¾ ounces and the grains per ear numbered 918. This grain was not quite so deep as that grown by Mr. Cochran; it was broader on top, and as a result there were only 12 rows per cob, whereas, in the case of Mr. Cochran's there were 16 rows. Observe that there was a difference of over 300 grains per ear, due to the shape of the grain.

Two excellent samples of yellow corn were exhibited, one by Mr. Smith and another by Mr. Gregg. In both instances the ears shelled out 16½ ounces of grain, and the cobs averaged right around 2½ ounces in weight. Mr. Smith's corn shelled out 1169 grains per ear and Mr. Gregg's 894. In this instance observe that two ears yielding the same weight of grain showed a difference of 275 grains. Mr. Gregg's corn was the better because the grains were broad, firm and flinty in character. In the other sample the grains were more of the shoe-per type

CHOICE**O. I. C. PIGS**

Eligible to registry and first class Boars ready for service, \$10.00 each, 2 mos. pigs either sex, \$5.00 each. Polland China pigs eligible to registry, \$5.00 each. None but good ones shipped.—A. G. HUTTON, Lexington, Va.

REGISTERED

O. I. C. SWINE.

Service boars and gilts at \$10. 2 mos. old pigs at \$5. First-class stock. Also SCOTCH COLLIES for sale. Males \$5. Females, \$4.—T. M. WADE, Lexington, Va.

Dorsets

Woodland Farm has a few of the best rams it has ever offered. Wool is an item worth considering this year, and our rams are exceptionally heavy shearers, besides having excellent mutton forms. J. E. WING & BROS. Mechanicsburg, O.

Registered Dorset Ram.

I offer for sale, cheap, to avoid in-breeding, my registered Dorset Ram, 3 years old, fine animal, certificate of registry furnished—write for price. Also, a few fancy PEA-COCKS, SNOW WHITE, fan-tailed pigeons, and thoroughbred mated HOMERS for squab raising. THOS. TOMLINSON, Tate Springs, Tenn. Reference, Bradstreet or Dun.

JARNAGIN STOCK FARM

for the best Poultry.

R. C. Brown and S. C. Buff Leghorns; White (Pedigreed) and S. L. Wyandottes; Barred P. Rocks, (Thompson's Ringlets dotted); R. C. Rhode Island Reds; M. B. Turkeys. Grand lot White Wyandotte and Plymouth Rock Cockereis. Stock \$1 to \$2; Eggs, \$1.50 per sitting.

Write your wants and get Special price on large orders.—MRS. J. R. JARVAGIN, Tate Spring, Tenn.



ESSEX PIGS and Southdown Sheep

I have some choice Essex Sows 4-6 mos. old and pigs for spring delivery, also some choice Southdown Ewe lambs for Jan. and Feb. delivery. L. G. JONES, Tobaccoville, N. C.

BULL FOR SALE.

or exchange; ¾ Red Poll and ¼ Durham; a fine animal.—T. S. NICHOLS, Chase City, Va.

REGISTERED

Angus Calves.

Large Toulouse Geese.

J. P. THOMPSON, Orange, Va.

BEST HOG ON EARTH!

CHESTER WHITES at farmers prices; now booking orders for spring delivery. S. M. WISECARVER, Rustburg, Va.

Mention The Southern Planter when writing advertisers.



YOU ARE INVITED TO VISIT
THE MOST FAMOUS HORSE BREEDING FARM IN THE WORLD

M. W. Savage, sole proprietor of "International Stock Food Co." Minneapolis, Minn. is also owner of "International Stock Food Farm" of 700 acres, 10 miles from Minneapolis. The above engraving shows the main training stable which was designed by Mr. Savage and is the only stable of this kind in the world. It is 400 feet long across the front. The Octagon center is 90 feet in diameter and each of the five wings is 195 feet long and contain 150 box stalls each having good light and outside windows. The center is over 100 feet high and contains a large tank in the top, which gives a good supply of water throughout the entire stable. The entire stable is heated by steam and hot water and cost over \$50,000. We also have over 100 additional stalls in our brood mare stables. This farm is located in the beautiful and fertile valley of the Minnesota River, which empties into the Mississippi River at old, Historic Fort Snelling. The farm is reached by both Steamboat and train and is one of nature's garden spots for a farm of this kind. A sparkling trout stream which never freezes winds its way through the farm and under the shade of many magnificent trees gathers many picnic parties to enjoy the beauties of nature and to watch the care and training of the large number of colts always in training on our mile track located on river bank and built by the world's famous track builder, Mr. Seth Griffin. This is one of the very best and fastest stock tracks ever built and although built on comparatively level ground it cost \$1800, on account of the slow, careful work necessary to the best selection and placing of the sod. We selected sod that had never felt the disturbing touch of a plow and placed the roots up. This makes a track of unusual life and elasticity so that the colts do not become sore or bad gaited from their every day training. We are also building a half-mile track for special use when the mile track is unfit for use by reason of rainy weather and for the training of colts intended for race events on half mile tracks. "International Medical Spring" is located on this farm and has a flow of 6000 barrels per day. This water is deliciously medicated and is noted for its many cures. Twenty five springs are located in different parts of the farm and it is abundantly supplied with the purest of water. "International Medical Spring" farm is located in the history of the world that over owned such Four World Champion Stallions as Dan Patch 1554 Cressens 2924 Directum 2354 and Arion 2474. These stallions are all the present time champions in their class and with other stallions Roy Wilkes 2564 Ed Patch 2583 Buttondown 237 Directum Jr. 2245 and "International Stock Food" three times a year. Dan Patch 1554 the fastest harness horse the world has ever seen, never broke the world's record until after he had eaten "International Stock Food" six months. It made his blood pure and rich, permanently strengthened his entire system, aided his digestion and assimilation so that greater nerve force was produced and this gave more speed, endurance and strength. Since eating "International Stock Food" Dan Patch 1554 has won twelve world's records and closed the season of 1905 in remarkably fine condition and running over with speed.

We also have one hundred high class brood mares and their colts every year and they eat "International Stock Food" every day. When you visit the farm we want you to look them over specially and see the results. We have colts for sale by our Stallions which you can buy by mail as safely as if you saw them. We

guarantee to refund your money immediately if purchase is not exactly as described. We take all risk and guarantee satisfaction. Write us at any time. Our leased colts at foaling time are always extremely small and we attribute this to the fact of our mares being kept in much better condition by the constant use of "International Stock Food".

Prominent horse breeding farmers and trainers are regular users of "International Stock Food". It pays us to feed it to our horses, it pays them to feed it to their horses and we positively guarantee will pay you to feed it to your horses and other stock. If it ever fails the use of "International Stock Food" will not cost you a cent as it is always sold by over One Hundred Thousand Dealers on a "Spot Cash Guarantee". It will pay you to test it. If not for sale in your locality write direct to us and your letter will have prompt attention. When in this locality, Mr. Savage especially invites you to visit "International Stock Food" farm, and the freedom of the farm is yours at any season of the year. We want you to compare the different families that we are breeding and to personally see the results of feeding "International Stock Food". A large number of men are constantly in attendance at the farm and you will be shown every courtesy in looking over the farm and examining the horses. We never advertise anything but what we can show you with pleasure.

Our Elegantly Illustrated Farm Catalogue.

We have just published a very handsome illustrated Catalogue of our farm and horses. We believe this to be the most attractive catalogue of this kind ever published. It is printed on heavy enamel paper, elegant colored cover and contains 80 pages 9 by 12 in size. It gives a correct history of the racing life of each of the Four Champion Stallions with name of track and date where every important race was held. This matter is written in a thrilling style that appeals to every horse owner or lover of a horse. This Catalogue contains so much horse history that every horse lover should have one. It not only gives this history but it also contains many very beautiful half-tone pictures of these world Champion Stallions, brood mares, colts and general views of farm, river and valley. This book would grace the library of any man. We cannot afford to mail this beautiful book free, however, but we will send you one free if you will send us a copy of any paper you wish to receive. However we have decided that we will mail one copy free to anyone who writes us and encloses 35 cents in stamps for postage. If you would like a copy be sure and write at once and the Catalogue will be mailed promptly. First thousand cost us \$1.75 each.

DAN PATCH 1554 MAILED FREE

We have a Beautiful Six Color Picture of our Champion Pacer, Dan Patch 1554, size 16 by 24. Free of advertising, fine picture for framing, gives all the records made by Dan Patch wonder. We will mail you one free, postage prepaid, if you write us how much stock you own and name this paper. Write to INTERNATIONAL STOCK FOOD CO., Minneapolis, Minn., U. S. A.

and were so narrow that they did not develop and cure out so well as the others, and hardly gave sufficient room for the development of the germ.

The corn judging contest inaugurated at Purcellville could be copied by all our institutes with advantages and profit. It is a pleasure to meet with farmers as industrious, enterprising and progressive as those who reside in the section of the State mentioned, and is the best evidence that our people are thoroughly alive to the situation, putting their shoulders to the wheel and moving steadily forward along all agricultural lines.

ANDREW M. SOULE,
Va. Expt. Station. Director.

Wood Co., W. Va., Dec. 19, 1905.

I value the Southern Planter very highly. It is one of the very best agricultural papers I have ever read.

J. Y. SMITH.

RED-NECKED CATTLE.
20 Head Pure-Bred and Registered.

MATURE AND YOUNG ANIMALS OF BOTH
SEXES.

PIERSON BROS., Summit, Spotsylvania Co., Va.

The Delaware Herd of

ROYAL ANGUS CATTLE

is not surpassed either in breeding or individual animals by any herd in the East. At the head of our herd is

PRINCE BARBARA, 68604,

the son of the great \$9,100 Prince Ito. Females of equally choice breeding. Write your wants remember, we take personal interest in our cattle and high priced help incur no expense of exhibiting; all of which enables us to offer stock at equitable prices. Send for pamphlet.

MYER & SON, Prop. Bridgeville, Del

"WHAT'S IN A NAME."

Editor Southern Planter:

How often we hear the expression, "There's nothing in a name," and that "A rose by any other name would smell as sweet," etc., etc.; and yet—and yet, we may not forget, that in many cases conditions and circumstances, there is a plentiful sufficiency in many names.

There is a significance about some names—a malignance, we may properly term it, which is actually appalling when we consider it carefully and thoughtfully.

To illustrate, take for example, the word devil. There is something in the very shape, or size, or sound, or appearance of the word, which at once sends cold chills to playing tag up and down our spinal column, especially if we have been doing anything bad—a "condition and not a theory, which confronts the most of us."

Let us, just out of curiosity or amusement, make an effort to exterminate the "critter" by cutting his head off; by decapitating him; by cutting off the "d" and see what we have left.

We see that we have evil left. Pronounce it slowly and we have Evil, and if Adam told the truth, it was through Eve came all the "ills" to which flesh is heir—"The woman, she did it," so he said.

Apply the pruning knife and cut off another letter, and we have "vil" left; which, pronounced with the short sound of "i," makes the back-bone—the framework—the principle part of "villain." If we give it the long sound of "i," it is still "vile" and bad.

Getting desperate we detach another letter, and we have "il" and that reminds us of disease, doctors and death. Finally we make a last effort and cut the word down to its final letter "i," and when we get an English cousin to pronounce the letter "i" we have the whole thing in a nut shell.

The word from start to finish is consistently, persistently and insistently bad. No matter how much you chop it up, it is like the "Star Spangled Banner,"—"It is still there."

From this we learn two things. One is that there seems to be something in some names; the other is that it is very, very hard to curtail the devil, or behead him, or rout him; because, after being beheaded four his frequent decapitation. letter apparently none the worse for has frequent decapitation.

Norfolk, Va.

A. JEFFERS.

LEGISLATORS PLEASE NOTE.

Editor Southern Planter:

I have just read the resources of Virginia, by Andrew M. Soule, in the Southern Planter; and think the State Legislature of Virginia would do well to issue a publication of this kind for free distribution and send it out

Hereford Cattle and Berkshire Hogs

Our Herefords are the Cream of the best Herds in this country REX PREMIER our Herd Bull is perfect in conformation. He won first at Mo. State Fair, Hamlin, Minn., Kansas City Royal, Lexington, Ky., Lawrenceburg, Ky. and Shelbyville, Ky. His sire was the first Bull ever defeated Dale and was Grand Champion for two years. Our Hereford Matrons are by such noted Bulls as Marchon Beau Donald, etc. Young stock for sale. Also a few choice cows.

In Berkshires we observe the same rule always the best. eW are constantly adding new Blood. Our present Herd oBard are two noted eKentucky hogs, Royal aBchelor and Realty Duke, both won first wherever shown at Ky. Fairs. Either one will tip the scales at 800 lbs. in good condition. Several of our aged sows will do the same. Among the latter are sevreray Sweepstakes Winners. Pigs, etc., for sale at all times at reasonable prices. All statements and representations guaranteed.

ELKTON STOCK FARM

FOREST DEPOT, VIRGINIA.

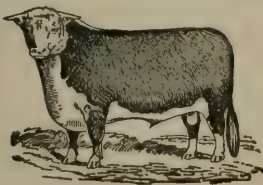


ACTOR 25th, 1922

INGLESIDE HEREFORDS

Owned by S. W. Anderson, Blaker Mills, Greenbrier county, W. Va.

A choice lot of BULLS, COWS, and HEIFERS for sale. Also a few POLLED HEREFORD BULLS recorded in the National Polled Hereford Records. Write for catalogue and prices. Farm near Alderson, W. Va., on the C. & O. R. B. Telegraph and Telephone office, Alderson W. Va.



Grand Champion Prince Rupert, No. 79539.

HEREFORD CATTLE

HIGH CLASS HERD.

PRICES VERY REASONABLE.

EDWARD G. BUTLER, "ANNEFIELD FARMS,"

Berryville, Va.

Best English and American strain
BERKSHIRE HOGS.

"We Wish You a Prosperous New Year."

By investing in a Hereford Bull calf, you will certainly become prosperous. 6 calves ranging in age from 7 to 14 mos. and in weight from 60 to 120 lbs. for sale now. Finest breeding—biggest growth. Notice the ages and weights.

Cross a Hereford on "any old cow," and the result is a red, white faced calf—the Hereford trade mark on every one.

Calves can be shipped South now with perfect safety. Best and largest herd in the State—best equipped plant.

Write us a letter now and send for catalogue.

ROSEMONT FARM, Berryville, Clarke Co., Va.



HEREFORDS ENTIRE HERD. DORSETTS.

Sold to settle Estate.

H. ARMSTRONG, Lantz Mills, Va.

MORVEN PARK.

The Property of WESTMORELAND DAVIS, Esq.

Large White Yorkshires.

LARGE WHITE YORKSHIRE PIGS from prize winning families for sale. Herd headed by imported boar, "Holywell Huddersfield" No. 4 50 (A. Y. C.), second prize at Yorkshire Show, England 1904. These pigs are the English Bacon breed: they are prolific breeders, economical feeders, and hardy of constitution. During the month of August the two farrowing sows, imported Sweetest Polly (A. Y. C.), gave birth to 17 pigs, and the sow imported Holywell Empress (A. Y. C.), gave birth to 14 pigs, and in December 1905, Holywell Czarina, 20th. farrowed 17 pigs. Orders will now be received for boars and sows from some of these and similar litters.

Reg. Guernsey Cattle.

REGISTERED GUERNSEYS—Herd headed by imported Top Notch, 9023 (A. G. C. C.), a son of Imported Itchen Beda advanced Reg. No. 136, assisted by Mainstays Glenwood Boy, 7607, A. G. C. C. (son of Jewell of Haddon), advanced Reg. No. 92. This herd is rich in the blood of Mainstay, Rutila's Daughter, Imported Honoria (Guernsey Champion, first prize at St. Louis), the Glenwood, Imported May Rose and imported Masher families. Bulls only for sale.

Dorset Horn Sheep.

DORSET HORN SHEEP.—Flock headed by the Imported Ram, "Morven's Best," No. 4132 (C. D. C.); first prize at the English Royal 1904.
Orders now received for all born ram lambs.

Flocks and herds may be viewed by appointment.

Address

LIVE STOCK DEPARTMENT, MORVEN PARK,
LEESBURG, LOUDOUN CO., VA.

broadcast to all who would send for it.

Michigan and some of the Northwestern States, adopted this plan to attract emigration and succeeded in settling up their States.

Northwest Canada is offering inducements to immigrants and making large inroads on our population, especially from Ohio. Virginia can offer better inducements to farmers, mechanics, mechanics and laborers, than any other State in the Union.

Why not make the effort?

Dayton, Ohio. R. W. HOOKE.

WITH THE ADVERTISERS.

Aluminum Stock Markers are advertised by the Wilcox & Harvey Manufacturing Co. of Chicago.

The Prussian Remedy Co. has a couple of ads. in this issue offering its Heave Powder and Distemper Cure.

The Spangler Manufacturing Co. offers its York Improved Weeder again this season.

The Consumers Carriage Mfg. Co. has an attractive ad. on the second cover page, to which we invite attention.

The Nitrate of Soda Propaganda starts the season's advertising with this issue. Cotton planters can secure a small amount of nitrate of soda free of charge for experimental purposes.

The Johnston Harvester Co. has several attractive advertisements in this issue, to which attention is invited.

The Prairie State Incubator Co. has an announcement in another column, to which we refer you.

The Elkhart Carriage & Harness Mfg. Co. are advertising their buggies and harness as usual this season.

The Deming Co. invites inquiry into its Power Spraying outfit. Look up the ad.

The International Stock Food Co. have two very prominent advertisements in this number, to which we ask particular attention.

W. J. Jordan & Son will sell at auction all of their pure bred Percheron and French coach horses on March 7th. Look up the ad.

The Miniborya Farm has a half page ad. in this issue, in which Holsteins, Jerseys and Berkshires are offered.

Mr. J. Hobbs has a great offering of poultry, sheep and swine.

Lee's Prepared Agricultural Lime is offered our readers as usual this spring.

The Quaker City W. M. & Pump Co. is offering the Lansing Silo, for which they are the Eastern agents.

R. H. Deyo & Co. would like to correspond with parties wanting gasoline engines.

The White Poultry Yards are offering stock and eggs of all the white breeds of poultry.

The Oakhill Farm will have a public sale of its dairy herd. You had better look up the ad. and write the proprietor about his offering.

AT PUBLIC AUCTION.

20 HEAD PURE-BRED and GRADE

JERSEY COWS.

8 are fresh and the remainder are due to calve in the Spring.

Also several head of

Good Work Horses.

Having discontinued my Dairy business, I will sell the above stock at Public Auction, at Oak Hill Farm, Oak Hill, Va., (station on the farm) D. & W. Ry., 15 miles west of Danville, Va., on

THURSDAY, FEB'Y. 15th. 1906,

Commencing at 11 A. M. Terms announced at the sale.

OAK HILL FARM, Sam'l Hairston, Prop.

Wenonda, Va.

BERKSHIRES, GUERNSEYS, JERSEYS,

B. P. ROCKS.

BRONZE TURKEYS, BROWN CHINESE and TOULOUSE

GEESSE, PEKIN DUCKS, and a few Drakes and pairs of domesticated WILD MALLARD DUCKS; SHEPHERD PUPPIES.

PRICES LOW.

M. B. ROWE & Co., - - Fredericksburg, Virginia.



Edgewood Stock Farm.

DORSET SHEEP.

The first fruits of the flock arrived in October this year. We never took more pains in mating and we must have better ram lambs than ever before. As long as we deserve your trade, we shall expect it. The Dorset is coming right into its own in Virginia. If you are in the lamb business you must have Dorset blood. We will book your orders right now for Spring delivery. With best wishes for the breeders of the golden hoof,

H. B. ARBUCKLE,

Sincerely,
Greenbrier, Co., Marlinton, W. Va.

POLAND CHINA

:—: AND :—:

TAMWORTH PIGS

entitled to registration; also bred Sows at reasonable prices.

APPLY TO

J. C. GRAVES, Barboursville, Orange Co., Va

REPORTS.

U. S. Department of Agriculture. Washington, D. C. 21st Annual Report of the Bureau of Animal Industry.

Every stock owner should ask his Senator or Congressman to send him a copy of this report. It is full of valuable information.

Bureau of Animal Industry, Bull. 81. The milk supply of Boston, New York and Philadelphia.

Bureau of Animal Industry, Cir. 89. Preparation of emulsions of crude petroleum as insecticides.

Bureau of Chemistry, Bull. 91. Mineral waters of the United States. Office of Experiment Stations. Experiment Station Record, Vol. XVII No. 4.

Bureau of Entomology, Circular 67. The clover root borer.

Forest Service, Circular 36. The Forest Service—what it is, and how it deals with forest problems. Bureau of Statistics, Bull. 39. Meat in foreign markets. Tariff of 14 importing nations and countries of surplus.

Farmers' Bull. 119. Experiment Station work. Storing apples without ice; cold storage on the farm; keeping qualities of apples, etc.

Farmers' Bull. 237. Experiment Station Work, XXII. Lime and clover; plant food requirements of fruit trees; cover crop for tobacco fields, etc.

Farmers' Bull. 225. Experiment Station work, XXIX. Fertilizer machines; potato culture; cow pea seed; tomato growing, etc.

Farmers' Bull. No. 239. The corrosion of fence wire. Farmers' Bull. 240. Inoculation of legumes.

Farmers' Bull. 241. Butter making on the farm.

Department of the Interior, Washington, D. C. Nature study and gardening; primary methods and outlines for the use of teachers in the Indian schools.

Colorado Experiment Station, Fort Collins, Col. Bull. 106. Pruning fruit trees.

Cornell Experiment Station, Ithaca, N. Y. Bull. 234. The Bronze Birch borer.

Bull. 235. Co-operative spraying experiments.

Kansas State Board of Agriculture, Topeka, Kas. Report for the quarter ending December, 1905. The Corn Book.

Kansas Experiment Station, Manhattan, Kas. Bull. 130. Steer feeding experiments.

Bull. 131. Care of dairy utensils. Press Bull. 148. A troublesome parasite of the horse. The paddock worm.

Maryland Agricultural College, College Park, Md.-College Quarterly. Analysis of commercial feeding stuffs sold in Maryland.

New Hampshire Experiment Station.

MONTVIEW JERSEYS.

We have for immediate Sale bull calves sired by
Forfarshire, Marrett's Flying Fox, and Flying Fox's Rex,
three of the best Imported Jersey Bulls in America. Also several magnificently bred Heifers of the Golden Lad and St. Lambert type. Prices reasonable.

MONTVIEW BERKSHIRES. MANOR FAITHFUL.

According to Geo. F. Weston, THE BEST BOAR THAT COULD BE FOUND IN ENGLAND by Biltmore Farms—heads our herd. He sold for \$615.00 and weighs 1100 pounds in show condition.

HER MAJESTY.

Is among our Imported brood sows. THE COUNTRY GENTLEMAN pronounced her THE BEST SOW IMPORTED BY BILTMORE FARMS and W. R. Harvey, Manager of Filston Farms, Maryland, writes that she is "The best Imported Berkshire saw in America."

If you want a great brood sow or boar, let us book your order for February pigs of above mating.

MONTVIEW STOCK FARM, (Carter Glass, Owner).
BOX 513, LYNCHBURG, VIRGINIA.

BILTMORE FARMS

R. F. D. No. 2, Biltmore, N. C.

THE HIGHEST STANDARD

JERSEY BULL CALVES

BOTH AMERICAN AND ISLAND TYPE.

Also young Berkshire Boars and Sows
of the best conformation and breeding for sale at all times.

Write for circulars and price lists. Bargains.

Address, **BILTMORE FARMS,**
R. F. D. No. 2, Biltmore, N. C.

EVERGREEN FARMS

Offer at reasonable prices:

2 HIGHLY BRED REGISTERED JERSEY BULLS
aged 8 and 11 months. Cows fresh to pail.

Full Blood **BERKSHIRES** from Royal Blood.

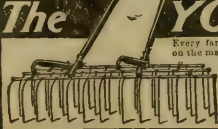
W. B. GATES, Prop. - - - Rice Dep. Prince Edward County, Virginia.

HOLSTEIN FRIESIAN

A choice lot of young stock for sale; some young bulls ready for service and bull calves sired by DEKOL 2D, BUTTER BOY, 3D, No. 2, and SIR PAULINE CRADDOCK, whose breeding and individuality are unsurpassed.

Also a nice lot of BERKSHIRE PIGS, Biltmore and Filston strains.

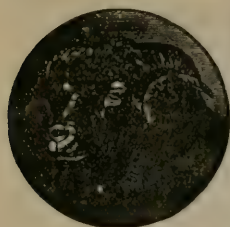
Before buying, write us what you want. FASSITT BROS., Sylmar, Md



The YORK Improved Weeder

Every farmer should own a YORK IMPROVED WEEDER. It is the greatest machine on the market for getting rid of weeds without injuring the growing crops. It has every advantage of efficiency and economy over all other weeders—Square Spring steel teeth, round points, narrow in the body of great flexibility and with a frame made of strong flexible material—very durable and adjustable. Size 1 1/2 feet, weight 30 pounds. Spangler perfect in operation, cheapest. Write at once for our free catalogue.

SPANGLER MFG. CO., 504 N. QUEEN ST., YORK, PA.



Farmers and Live Stock Dealers

If you have any kind of Live stock to sell send it to me—Cattle, Sheep, Lambs, Calves or Hogs. I guarantee highest market value according to quality. Sales made quickly and returns promptly. Strict personal attention given to the sale of every animal. I pay just as much attention to a single head as I do to car lots. Write me when you wish to know the market on anything in my line. I give accurate information as to prices and conditions of our market.

ROBERT C. BRAUER, Richmond, Va.

COMMISSION SALESMAN OF CATTLE, HOGS, SHEEP, LAMBS, AND CALVES.

Address: P. O. BOX 204. Pens and Offices: Union Stock Yards. Long Distance Phone. Phones Nos. 993 and 5059:

Durham, N. H. Bull. 120. The dairy industry in New Hampshire. North Carolina Department of Agriculture, Raleigh, N. C. Progress made in exterminating the fever tick in North Carolina.

North Carolina Pest Crop Comm., Raleigh, N. C. Requirements of the different States regarding the importation of nursery stock.

North Carolina Nurseries licensed for year from Sept. 1, 1905, to Sept. 1, 1906.

North Carolina Department of Agriculture, Raleigh, N. C. Division of Entomology. The cotton worm.

Ohio Experiment Station, Wooster, O. Bull. 166. The newer strawberries.

Circular 47. Department of Co-operative Experiments.

Pennsylvania Expt. Station, State College, Pa. Bull. 74. Methods of steer feeding.

Rhode Island Expt. Station, Kingston, R. I. Bull. 109. A comparison of the results obtained by the methods of cultures in paraffined wire pots with field results in the same soil.

Bull. 110. Commercial fertilizer.

Wyoming Expt. Station, Laramie, Wyo. Bull. 67. Duty of water.

Bull. 68. Ration experiments with lambs, 1904-1905.

Virginia Weather Service, Richmond, Va. Report for December, 1905.

Imperial Department of Agriculture for the West Indies, Barbadoes, W. I. Cultivation and curing of tobacco.

SAW-MILL CATALOGUE.

We are in receipt of the 1906 Catalogue (No. 12) of the American Saw-Mill Machinery Co. of Hackettstown, N. J., and New York City. This catalogue is a complete book on the saw-mill machinery line and all interested should certainly send for it.

Look up their advertisement on another page and mention the Southern Planter when writing them.

Mention The Southern Planter when writing advertisers.

The Grove Stock Farm Holstein-Friesian Bulls.

Two 2 years old

One 1 year old

Four 6 mos. old

Will sell them cheap to make room for others. Prices includes registry and transfer to buyer.

T. O. SANDY, Prop. Burkeville, Va.

SUNNY HOME HERD —OF— Aberdeen Angus Cattle.

Several of our friends failed last year to order bulls until after the close of the quarantine, and consequently were disappointed in not being able to get what they wanted. To save this trouble NEXT SPRING send your order NOW with BANK REFERENCE and I will ship your bull, you to pay for him when ready to use him next spring. This has been the best year in the history of the Sunny Home Herd. Cattle better than ever, and sales to match.

Send on your orders, we are ready for you.

Address: A. L. FRENCH, Propr., R. F. D. Byrdville, Va. Station Fitzgerald, N. C., on D. and W. Ry.

LARGE YORKSHIRES.

The most prolific and profitable breed Boars fit for service. Sows and gilts in farrow, and weanling pigs for sale.

JERSEY CATTLE.

Bulls and Heifers from cows testing 18 to 23 lbs. of butter in seven days. The \$10,000 bull Eminent and Rioter of St. Lambert, Jr., at the head of the herd.

INDIAN GAME FOWLS,
the best table fowl.
WHITE LEGHORNS,
the best layers.

Prices Reasonable.

Address,

BOWMONT FARMS, Salem, Va.

MINIBORYA FARM.

The Property of J. SCOTT PARRISH.

HOLSTEIN=FRIESIANS.

We Have Some CHOICE BULL CALVES For Sale.

One of these by "NETHERLAND CLOTHILDE MONK," out of "BEAUTY MAID BELLE QUEEN," which has milked 2652 lbs. in the last 75 days. This calf was dropped October 31, 1905.

JERSEY BULL CALVES.

We have some very nice ones sired by "Noble General Gordon."

BERKSHIRES

That are winners in the best company.

WRITE US FOR PRICES.

MINIBORYA FARM, - - Box 901, RICHMOND, VIRGINIA.

PERCHERON and FRENCH COACH HORSES FOR SALE AT PUBLIC AUCTION, WEDNESDAY, MARCH 7th. 1906.

The senior member of our firm having sold his farm, it will be necessary for us to dispose of our Horses consisting of

15 Pure-bred PERCHERONS, including Stallions from 1 to 6 years old, mares in foal and fillies; 7 pure-bred FRENCH COACH fillies, mares and Stallions, also some good grade mares and geldings.

The above are the pick of all we have bred for years and will be sold under a guarantee as to their soundness. Remember, that these horses are all home-bred, thoroughly acclimated, perfectly broken and are good work horses in good condition, and fit for service.

TERMS: Every animal goes to the highest bidder on satisfactory terms: Will give 1 to 3 years time if purchaser desires it.

DON'T FORGET THE DATE.

— COME AND INSPECT THE STOCK.

W. J. JORDAN & SON,

— Dublin, Pulaski County, Virginia.

WOODSIDE BERKSHIRES.

Everything Shipped on Approval.



All of our pigs old enough to ship are sold, and we are now booking orders for Jan. and Feb. delivery, for pigs sired by our two great boars, LUSTER'S CARLISLE OF BILTMORE, No. 72057, and MASTER LEE OF BILTMORE, No. 73979, and out of sows weighing from 500 to 600 lbs. each, in only fair breeding condition. LUSTER'S CARLISLE was 2 years old on June 4th, weighs 750 lbs. and is as active as a 6 months old pig. He is sired by ROYAL CARLISLE No. 63313, dam TOPPER'S LUSTRE, No. 54923. MASTER LEE was 1 year old on June 5th and now weighs 525 lbs. He is sired by LOYAL LEE 2ND, OF BILTMORE, No. 65632, dam IMPORTED DANESFIELD MISTRESS, No. 76327. LOYAL LEE 2ND is undoubtedly the champion Berkshire boar of the world, having more prizes to his credit than any other boar living or dead. DANESFIELD MISTRESS is a daughter of DANESFIELD HUNTRESS, No. 63176, who has an unbroken record of first prize at all the leading English shows, with one exception, and then being defeated by her daughter DANESFIELD MISTRESS. We consider MASTER LEE one of the greatest young sires in America, and expect to prove it in the show rings next fall. In order to show our confidence in what we offer and insure satisfaction to our customers, we will ship pigs ON APPROVAL, and if they are not entirely satisfactory in every respect, you can return them at OUR EXPENSE. In other words you can see the pigs before you buy. Can always furnish pigs not akin. We are offering a few choice gilts bred to MASTER LEE for April farrow. For full particulars, Address, WOODSIDE STOCK FARM, R. S. Farish, Prop., Charlottesville, Va.

THE IMPLEMENT BLUE BOOK.

The Midland Publishing Co., of St. Louis, Mo., has just issued the Third Annual Edition of the Implement Blue Book, a complete and accurately compiled directory of agricultural implements and machines, showing in detail the goods of every manufacturer in the United States and Canada, supplemented by a full list of jobbing and branch houses at all the principal distributing points. The Blue Book for 1906 contains 448 pages, 6x9 in., handsomely bound in blue cloth, blue embossed, and was published for the exclusive use and benefit of dealers in agricultural implements with whom it is the standard of the world. The company has on hand a few hundred copies which it is sending out on receipt of 20 cents to pay for packing and postage.

FRUIT AS A MORAL AGENT.

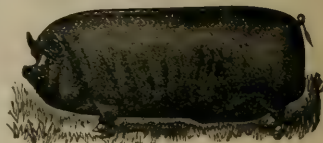
"An apple a day keeps the doctor away," runs the proverb. It might truthfully add that it also helps mightily to keep the devil away. Fruit eaters are rarely or never drunkards or cigarette slaves. To raise boys and girls to be fruit eaters, it is only necessary to provide the fruit. An orchard is an absolutely essential part of every home worthy of the sacred name home and it should be a good orchard. They cost no more than bad ones. It should afford peaches six months in the year; berries of different kinds for two. Grapes and figs for three plums and cherries for two, and apples and pears for twelve, all first class. The Continental Plant Company of Kittrell, N. C., makes a specialty of furnishing trees and plants that afford an all the year round supply of fruit. They sell direct to the people at wholesale rates. Their catalogue is free and now ready.

BILTMORE FARMS.

We invite attention to the usual announcement of the Biltmore Farms, to be found in this issue. They have splendid offerings in all their departments, and those interested in fine Jerseys, Berkshires, or Standard Poultry should send for their latest circulars.

"SWELLDOM" among BERKSHIRES.

Imported KINGSTONE POETESS, Imp. LUSTRE'S BACHELOR, Imp. INFANTER (World's Fair Winner), Imp. ELMA CLERE, Imp. LOYAL MASON, Imp. SIR JOHN BULL 1st, Imp. SIR JOHN BULL 2nd, and a host of others, including the now fashionable PREMIER blood which swept the blue ribbons at the World's Fair, at St. Louis. I refer you to Mr. P. S. Springer, Secy. Am. Berk. Assn. Springfield, Ill., as to whether I own the above strains and fully 20 more. All sizes and sexes for sale cheap. TOWELS PEKIN DUCKS—"Whoppers," PLYMOUTH ROCK, S. C. B. LEIGHORN Cockerels, FIT GAME Pullets and hens. THOS. S. WHITE, Fassifera Stock & Poultry Farm, Lexington, Va.



SIR JOHN BULL.

FOREST HOME FARM.

Has for sale a few

BERKSHIRE BOARS

Ready for service; also several

Gilts of Superior Breeding.

PIGS in Pairs and Trios.

Address,
PURCELLVILLE, VIRGINIA.



WALTER B. FLEMING, Proprietor of the Bridge Creek Stock Farm, Warrenton, N. C.

REGISTERED BERKSHIRES.

FINE BOAR PIGS for sale at low prices, considering their breeding; all sired by Thos. S. White's great Boar, UNCLE SAM, and out of LADY WELSH II, a magnificent young sow.

REG. DORSET RAM, Tranquillity 10567, weight, 200 lbs.; sell to avoid inbreeding; A sure sire of fine lambs.—BLOOMFIELD STOCK FARM, J. H. FRASER, Prop., Charlottesville, Cumb. Co., Va.



We POSITIVELY GUARANTEE to breed and ship the very best strains of thoroughbred registered **LARGE ENGLISH BERKSHIRE** Hogs for LESS MONEY than any other firm in the U. S., the superiority of our stock considered. Send us your order and we will satisfy you both in price and stock.

A CHEAP FARM LEVEL.

We could scarcely have gotten along this season in opening up a large ranch to irrigation cultivation without the use of a farm level, the cost of which is \$10, but which we are satisfied has saved us hundreds of dollars through the additional land brought under ditch by it. In one instance we found by running some preliminary levels that we were enabled to bring fifteen acres of fine benchland under-ditch which we supposed by cursory glance of the eye was so far above the water grade as to remain forever high and dry. This patch is now in full bloom with a good crop of spuds coming on and we consider ourselves just that much ahead of the game. Quite a number of these instruments have been sold in Colorado this year and others will be wanted when their merits are better known. They are manufactured by the Rostrom-Brady Company of Atlanta, Georgia, a perfectly reliable concern which will express a farm level upon receipt of \$10.

A GOOD WORD FOR THE PLANTER.

Editor Southern Planter:

Five years ago I moved to a farm in this (Charlotte) county. I didn't know when, where nor how to plant anything (having been raised in a small town). A neighbor sent me several copies of the Southern Planter, to which I subscribed at once, and now I am told, my name is in an agricultural journal as a successful (woman) farmer, thanks to Southern Planter. I have long since realized I can not farm without it. There is only one thing it needs, a regular want column. The Planter aims to help farmers in every way, and I believe a want column would be an improvement. The wants now are put with the advertisements, and not seen as quickly as if in a regular want column. I enclose a list of farmers to whom you might send sample copies. I believe a number of them would only have to see and read one copy before they would subscribe.

Respectfully,
MRS. CHAS. GUTHRIE.

1906 POULTRY BOOK.

We are advised by Mr. John E. Heatwole, of Harrisonburg, Va., that his new poultry book for this year is now ready for distribution. Interested parties are requested to look up his advertisement and send for the book.

There is no Money in Raising Hogs

If you run the risk losing your herd by disease.

HOGS ARE THE BEST PAYING PRODUCT ON THE FARM if you get them safely to market.

DR. JOS. HAAS' HOG REMEDY IS THE BEST HOG MEDICINE ON EARTH.

It is a preventive, and a cure. It makes better pork; it saves feed and brings the animal to maturity in less time. It makes the feed stick to the ribs.

INSURANCE PROPOSITION. DR. JOS. HAAS WILL INSURE YOUR HOGS AGAINST DISEASE AND PAY FOR ALL THAT DIE, if his Remedy is used according to directions. Write for particulars.

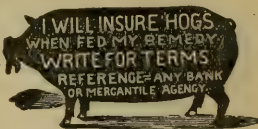
Dr. Jos. Haas' Revised "Hogology" free to readers of this paper, write today.

Prices of Dr. Jos. Haas' Hog Remedy: 25 lb. can \$12.50, half can (12½ lbs.), \$6.50, prepaid; Packages, \$2.10, \$1.25 and 10 cents each. None genuine without my signature on package or can label.

DR. HAAS' REMEDY IS NOT
AN EXPERIMENT.

Its Record is 30 years of unexampled
success.

DR. JOS. HAAS, V. S.
INDIANAPOLIS, - - INDIANA.



HIGHLAND STOCK FARM

POULTRY YARDS.

Mammoth Bronze Turkeys, Barred Plymouth
Rock Chickens and Muscovy Wild Ducks.

The above stock is of the best breeding.

For prices, etc., address,

HENRY S. BOWEN, Wittens Mills, Tazewell Co., Va.

POLAND-
CHINAS.

I have a limited number of Pigs by
my fine Boars, Gray's Big Chief, 57077

GRAY'S BIG CHIEF, 57077

and Victor G. 57075, and can furnish pairs not akin or related to those previously purchased. Young Boars and Sows of all ages. Send to headquarters and get the best from the oldest and largest herd of Poland-Chinas in this State at one-half Western prices. Address

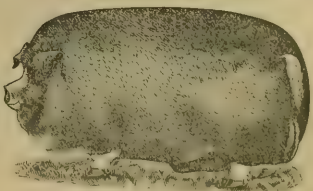
J. B. GRAY, Fredericksburg, Va.

POLAND CHINAS.

THE BIG KIND and the PRIZE-WINNING KIND.

PIGS, BOARS and BRED SOWS for sale at greatly reduced prices. Herd Boars now in service are: CHAMPION, 98157, a superb individual, bred by Winn & Meador, of Kansas, and a half brother to the Senior Champion Boar at the St. Louis World's Fair. Half Intestine the sire of D'S CORRECT IRISH 11 for \$2,500. My other herd boar, BIG JUMBO, Vol. 27, O. P. C. R., was sired by the 1100 lb. hog, PRRFECT I AM, 50767, and out of the 700 lb. sow, LADY P. SANDERS, 79-40. BIG JUMBO was bred by W. S. Powell, of Kansas, and will, I believe, make a thousand pound hog at maturity. SATISFACTION GUARANTEED OR YOUR MONEY MAY BE RETURNED AT MY EXPENSE. REFERENCES and TESTIMONIALS FURNISHED.

J. F. DURRETTE, Birdwood, Albemarle County, Virginia.



THE VIRGINIA STATE HORTICULTURAL SOCIETY.

The annual meeting of this society was held on the 23rd and 24th of January, in the hall of Murphy's Hotel, Richmond. There was a full attendance of members and others interested in fruit growing and great interest was evidenced in the proceedings. A fine exhibit of apples was made. Among those exhibiting being Geo. E. Murrell, who won the Emerson Cup, with a magnificent display; Mr. Jas. Dickie, who took many premiums; Senator S. L. Lupton, G. B. Adkins, Mr. Barnhart and Mr. J. H. Rangeley. President S. B. Woods, of Charlottesville, called the meeting to order and was followed by Mayor McCarthy, of Richmond, who welcomed the society to the city. Dr. J. H. Guerrant responded for the society. The president then delivered his annual address in which he referred to the need of cooperation amongst the fruit growers in orders that they should secure fair prices for their products. He also discussed the importance of the use of the best means of destroying and combatting insect and fungoid diseases in order to ensure perfect fruit, and strongly urged that attention should be given to the question of making a complete and large exhibit of the fruits of the State at the Jamestown Exposition, so as to thoroughly advertise the capabilities of the State as a fruit growing section. President Woods then introduced Governor Montague who made an excellent address in which he laid stress upon the success attained by Virginia fruit at the St. Louis Exposition, and to the advantage this had been to the State in inducing settlers to come here. He pointed out the need for good immigrants to settle up the waste lands of the State and pleaded for help in securing this especially as a means for meeting the need of more and better labor in the country. Good roads also, he said were a necessity for the State, and urged that money be appropriated for this purpose, as an investment rather than an appropriation. Professor Waite, of the Department of Agriculture, Washington, read a valuable paper on "Spraying for bitter rot and other fungoid diseases," illustrated by lantern slides. The discussion on the paper was lively and very instructive. The question of the place for holding the annual meeting next year caused a long discussion, as many places put in requests for the same. It finally resolved itself into a fight between Richmond and Staunton and Richmond won. At the night session the report of Prof. Phillips, the State entomologist and horticulturist of the Experiment Station, took up most of the time. He discussed the work done by himself and the Experiment Station, in dealing with preventives and remedies for San Jose scale, Crown gall and the fungoid diseases and much discussion followed. Secy.

"JONES" FENCES & GATES



last longer than others for the same reason that slate roofs outlast shingles—they're much better to start with. There's no economy in buying a "cheap" fence that is worthless after five winters when you can get the "Jones" that will

Wear 20 to 30 Years.

Big coiled spring wires; heavy stays; locks that do not slip; good galvanizing. Easily put up to stay. Our Catalog No. 8 will help you decide what to buy—contains practical fence pointers. Sent free upon request.

INTERNATIONAL FENCE & F. CO.,
698 Buttes Ave., Columbus, Ohio.

Agents Wanted—Hustlers can make honest money selling "Jones" fences and gates.

SAMPLE BROWN FREE FENCE

16 to 35 cts.
Per Rod Delivered

You can examine Brown Fence and know just what it is before ordering or paying one cent. We mail you a sample showing size and quality of wire. When you get the sample, test it with a cold chisel and see how hard, tough and springy it is. File off the galvanizing and see how thick it is. All wires—both strand and stay wires—are No. 9 gauge, and made of the best grade of steel. Weighs 1 1/2 to 1 3/4 more to the foot than most fences, and will last longer for the time. A more rigid, firm, stanch, stock-resisting, time-defying fence was never made to look like. Price 16c to 35c per rod, and we pay the freight on 40 rods or more. Write for catalogue showing 110 styles of fences. We also sell direct to farmers at lowest wholesale prices—Coiled Spring, Barb and soft Galvanized Wire, Gates and Poultry Netting. Save money by ordering direct from us. Address **THE BROWN FENCE AND WIRE CO., Cleveland, Ohio.**

MANLOVE SELF-OPENING GATE

ALWAYS IN ORDER.

In general use many years. Is guaranteed to work and give satisfaction, all sales made on that basis. It saves time and annoyance. Adds to value, and good appearance of a home and is a good advertisement for any up-to-date prosperous place. Catalogue MANLOVE GATE CO., 272 Huron Street, Chicago, Ill.



Double-Strength Fences



PAGE FENCE is the strongest fence. Every horizontal bar is a double-strength wire; is securely woven with large, continuous cross-bars, and the whole fabric heavily galvanized. It stands the severest use and abuse. Runaway teams cannot go through, neither does a falling tree break it. Write for evidence.

PAGE WOVEN WIRE FENCE CO., Box 516, Adrian, Mich.

When corresponding with our advertisers always mention the
SOUTHERN PLANTER.

S. L. Lupton, spoke on "Transportation and Marketing," remarking that fruit growers were much to blame that they made no preparation for meeting these questions, but left themselves almost wholly in the hands of the buyers and then complained when they thought they had not been accorded the best terms possible.

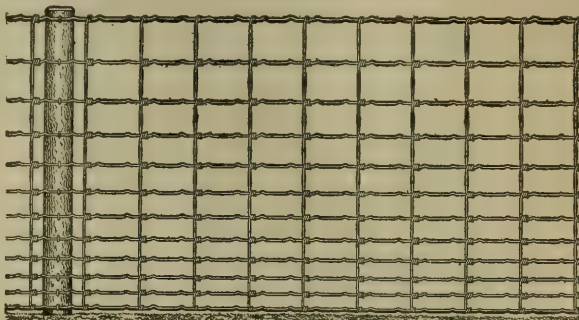
A resolution was passed directing the chairman to appoint a committee of five to take in hand the work of preparing an exhibit of the fruit of the State at the Jamestown Exposition. The second day of the meeting was largely taken up by discussion on the need of better educational facilities being afforded the farmers and fruit growers at the Agricultural College, in order that the young men of the State should be fully equipped to deal with the complex problems involved in successful farming and fruit growing. Prof. Soule, Director of the Experiment Station, made a strong appeal for financial support to the college and station in order that the buildings and equipment needed be at once supplied. He pointed out that they had already there about 100 agricultural and horticultural students with no place in which to properly instruct them, and were without the necessary scientific apparatus to demonstrate what they taught. He pleaded strongly for an appropriation of \$50,000 to complete the building of the agricultural hall and \$25,000 to equip the same, and for an annual grant of \$10,000 to the Experiment Station. With this equipment he did not hesitate to say that the material advancement of the State would be marvellous in a few years time as the young men sent out from the college would show how capable her lands were of successful and profitable culture. Dr. S. A. Robinson, a retired New York physician, who has a fine estate and orchard at Coveseville, Albemarle Co., followed Prof. Soule with a strong plea for more liberal support by the State of its Agricultural College and Experiment Station, and compared the niggardly assistance given here with the liberal way in which Northern and Western States helped the Agricultural Institutions of those States. He declared that his experience here had convinced him, that with proper help in educating the young men and making known the natural resources of the State, Virginia would soon take the highest rank in the States in fruit agricultural and live stock production. Resolutions were passed commending the work of the Virginia Agricultural College and Experiment Station and urging the State Legislature to appropriate \$75,000 to complete and equip the agricultural building and \$10,000 per year as additional help for the extension of the work of the experiment Station.

The election of officers resulted as follows: Saml. B. Woods, Charlottesville, president; S. L. Lupton, Winchester, secretary; H. L. Price, recording secretary.

AMERICAN FENCE TALKS

American fence is a structure of hard, stiff steel wires, possessing great strength and flexibility, adjustable to uneven ground, sound, durable and guaranteed. Great improvements are continually being made over the fences of years ago. See the modern, up-to-date American fence, built of big, lateral wires, with heavy upright or stay wires hinged—the most perfect structure for a square mesh fence.

The thirty plants of the American Steel & Wire Co. make every known grade of wire, from the stiffest wire for pianos to a wire almost as soft as silk for weaving into wire cloth. With these enormous facilities for manufacture and observation of the action of wire in all kinds of service, not only is the best wire made for the use required of it, but for less money.



It is Steel that makes possible the great modern structure like bridges, skyscrapers, locomotives and steamships that people confidently trust. Steel for wire is specially made and becomes stronger and more durable by drawing into wire and annealing. And when thoroughly galvanized by lately improved processes and woven into American fence, makes the most substantial structure about a farm. Properly put up and treated, it is a permanent and money-making investment for many years.

We sell through dealers all over the country. In this way the buyers' interests are best looked after. Dealer then becomes your business friend and he will see that you are treated right. See him, examine different styles, get catalogue and make selection to suit your requirements. Or, write us direct and we will send catalogue and tell you where you can get the fence.

NOT EXPENSIVE—Prices range from about 17 cents a rod up, according to height, style and location of your place.

American Steel & Wire Co.

CHICAGO

NEW YORK

DENVER

SAN FRANCISCO

Syracuse Chilled Plow.

Full chilled moldboard, sloping chilled land-side, chilled share with shin piece combined. This type suits the man who wants a plow.

Light draft and easily handled—the kind that suits the farmer's boy. A special favorite in light soils, but does satisfactory work everywhere. Both right and left hand. Before you buy a plow, talk with the Syracuse agent or write us for catalogue, showing every style plow for every purpose.

Syracuse Chilled Plow Co., SYRACUSE, N.Y.



JOHNSTON

ALL STEEL CONTINENTAL HARROW

This is the day of scientific farming and of scientific farm tools. Half the success of farming depends upon the preparation of the ground for the seed. No tool prepares the ground better than a **Johnston Disk Harrow**. It is a necessary tool for the progressive farmer—often takes the place of the plow. It turns, breaks up and thoroughly pulverizes the soil, and makes a fine bed for the seed. Try it on your corn land and on your sod. Many improvements have been added to it, which reduce the draft, increase the strength, simplify and make it more effective, more convenient to operate. No harrow like the **Johnston Disk Harrow**—thoroughly well built for good work and long life. We have a folder that describes its construction and tells about the Anti-friction Center Bumpers, Wood Bearings, Pressed Steel Weight Boxes, Special Springs, etc. Harrow is made in widths from 4 to 25 ft. cut, with solid disks, 16, 18 or 20 in., and cut-out disks, 16 and 18 in., also with center-cut, and disk drill and seeder attachments. A handy tool every farmer needs. Our Continental Harrow Folder gives full information. Our 1936 catalog describes the complete Johnston line of "Not in the Trust" tools for the farm. Ask for both. Write today, they are free.

THE JOHNSTON HARVESTER CO.,

BOX 511,

BATAVIA, N. Y.

BETTER FENCES.

One of the surest signs of prosperity of a community is the condition of its fences.

Particularly is this true of the fences used to enclose house yards, both on the farm and in our villages and towns.

This is doubtless partially due to the remarkable cheapening of the cost of producing that class of enclosures known as lawn fencing, and this other fact that a great deal of this material is now sold direct from the maker to the user at factory prices.

One such maker is our advertiser, the Ward Fence Co., of Portland, Ind. They make a great variety of patterns at prices to suit everyone. All these are fully shown in their fine catalogue one of which they will gladly mail to any reader of this paper. Address Ward Fence Co., Box R, Portland, Ind. and mention this paper.

A COMBINATION HARROW AND ROLLER.

The Imboden Harrow & Roller Co. of Cleona, Pa., are advertising what strikes us as being a very sensible tool in the shape of a roller and harrow combined. This firm will be very pleased to send circulars and prices to any inquiring. You will find their advertisement in this issue.

A Beautiful Calendar.

We have received a beautiful calendar 12x9 1/2 inches, showing a lovely girl with dark wavy hair, dressed in a fashionable lavender dress, standing under a large tree, filled with apple blossoms. In the background there is a very large, old colonial mansion, which reminds us of antebellum days, between the tree and the house there is a green lawn with flowers and other growing shrubbery. A driveway winds through the lawn up to the mansion. The calendar has at the bottom a pad with the months thereon, and each month has timely suggestions to farmers.

Any of our readers who obtain a copy of this calendar by sending 6 cents in stamps, to pay the cost of tubing and postage, to the Virginia-Carolina Chemical Co., at any one of the following cities where their Sales Offices are located: Atlanta, Savannah, Ga., Montgomery, Ala., Memphis, Tenn., Durham, N. C., Charleston, S. C., Shreveport, La., Norfolk, Richmond, Va., Baltimore, Md.

Will be free for the asking.

If you want broilers for the early market, when prices are high, read *His Hints and Hints*. See what it says about raising hens, if you want young pullets to lay next winter, when eggs are dear. There's money in fattened fowls for late summer and fall markets. The poultry business is one industry that is not overdone. We aim to put the you on right track to make money.

Our machines are scientifically correct. They are ahead in the percentage of eggs hatched and in ease of operation. They are made from carefully selected and seasoned lumber. We are not a new concern, we have been in the business for years. Our incubators will not warp and crack and be useless after the first hatch. They are built for service and use year after year. We put a good, honest weight of copper into our broilers and tanks. Our doors fit and close tightly. Our regular regulators. Our lamps burn clear and brightly. When you get the Victor you get the best—if it's any other you may be buying trouble. Write today.

GEORGE ERTEL CO., Quincy, Ill.

Thousands of customers regularly get 95 and 95 per cent hatches from our machines, using no more eggs and oil than their neighbors who with other machines get 80 to 85 per cent. We pay freight and guarantee our machines as represented or money refunded.

Established 1867.

Mrs. Lowry tells the way She made \$223.28 on Chickens

SURE HATCH INCUBATOR CO., Clay Center, Neb.
Gentlemen:—I own two of your 100 egg machines. Have had good success. I raised 674 chicks out of 636 fertile eggs. Sold the last a week ago, 60 chickens. Have made \$223.28. I call this good. Early broilers are the birds that bring in the gold. I used "Sure-Hatch" Chick Feed and found it a grand food for the little chicks.
Mas. G. W. Lowry,
West Salem, Ohio.

HOWS that for a woman?
You can do the same, if you get a Sure Hatch Incubator.
Now don't take our say so for this, but let us prove it to you.

Send for our big 100-page **FREE** Catalog, select the Incubator that suits you best and let us ship it to you on 60 days' trial.

We will pay the freight and let you use the Incubator two months at our risk. If it isn't all we claim, send it back at our expense and you are out nothing.

Our big **FREE** Catalog tells why. It is full of facts worth dollars to every poultry raiser. It contains Poultry House Plans and Illustrations, data on hatching and feeding, and valuable suggestions about raising and marketing poultry. It's information will put more money in your pocket. Send for it today. A postcard bearing your name and address brings it with prices from \$7.50 to \$17.50 on Sure Hatch Incubators and brooders holding from 75 to 200 eggs at a time.

SURE HATCH INCUBATOR CO.,
Box D 38, Clay Center, Neb.,
or Dept. D 27, Indianapolis, Ind.

Save 20% to 50% By buying a

AVIS Separator

It comes direct from the factory

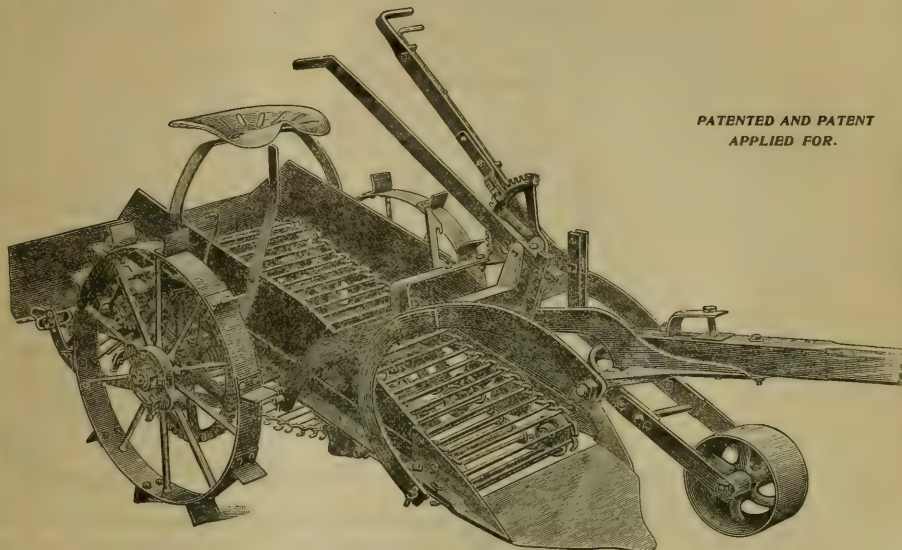
Factory prices. No middlemen's profits. Investigate our fair selling plan.

It's the low-down separator just belt high that has a three-piece bowl that can never get out of balance. In all the separator world there is nothing to equal the Davis for convenience, for nice, close skimming, for easy running and easy cleaning. Don't buy without having our money-saving Catalog No. 126. It's free. Write for it today.

Davis Cream Separator Co., 58-B North Clinton Street, CHICAGO, ILLINOIS.



Hallock's O. K. Elevator



PATENTED AND PATENT
APPLIED FOR.

POTATO GROWERS

Let Us Tell You *how one man in every potato growing locality where we have no agent may have one of our TWO HORSE ELEVATOR Diggers Free.* We also wish to send you such a grade of **FARMERS' TESTIMONIALS** as you never saw before.

BAYBORO, N. C., July 5, 1905.

Messrs. D. Y. Hallock & Sons,

York, Pa.

Gentlemen:

The elevator potato digger referred to in our last letter is the Dowden potato harvester manufactured at Prairie City, Iowa. We are very much interested in an elevator digger. We are fully convinced that it is the only successful digger on the market. If your digger is right, and you care to deal with us, we are willing to buy of you. The digger we mention above we know is all right, but has rather much weight and the draft is heavy, but we are convinced that it will pay us well to use the elevator.

Yours very truly,

Cowell, Swan & McCotter Co.

BAYBORO, N. C., Nov. 16, 1905.

Messrs. D. Y. Hallock & Sons,

York, Pa.

Gentlemen:

We have tried the O. K. digger and find it works very satisfactorily. If the digger does as well with our spring crop, where the tops are frequently very rank, we shall, indeed, think we have struck a bonanza in the way of a digger. We want the agency in this section for 1906.

Yours very truly,

Cowell, Swan & McCotter Co.

If you dally and wa yo u will come in too late. For this most WONDERFUL OFFER goes with the first order only.

D. Y. HALLOCK & SONS,

York, Pa.

LOWER PRICED SEPARATORS.

There is no question but that there has been among dairymen a crying need for a high grade separator, which could be sold at a lower price. Everybody wants a cream separator, but many have felt they could not afford to pay the high prices demanded. It remains for a Chicago separator manufacturer to meet this demand and to place a separator of the first class on the market at a price which is within reach of even the smallest cow owner. We refer to the Davis Cream Separator Co., of Chicago.

The high price at which separators have been sold has been due, not to the expense of manufacturing, but to the costly plan of selling. Here is where the Davis people have found opportunity to make their great cut in price. They have not cheapened the material, or reduced the capacity, or built an inferior machine; but they have adopted the plan of selling direct from their factory to the user, cutting off all State agents', jobbers', and dealers' commission and expenses. They have found that by pursuing this policy, they are able to sell direct to users their Simple Davis Separator at a price but little more than half that other standard machines are selling for. And it is one of the easiest running, cleanest skimming, easiest cleaned machines on the market. We believe that an investigation, both as to quality and price, will prove what we have said to be true. The way to begin is to write to the Davis Cream Separator Co., 56B North Clinton street, Chicago, for their catalogue. Not necessary to write a long letter; a postal will do. Just address as above and say: "Send me your catalogue No. 126." It will come promptly.

HAAS' HOG REMEDY.

We print the following letter received by Dr. Haas:

Rover, Howard county, Md.,
Jan. 13, 1906.

Dr. Ross, Haas:

Dear Sir—I wish to inform you that your remedy has done magic work among my hogs. I am feeding it regularly and would not be without it. While I do so I feel perfectly safe when my neighbors' hogs are dying.


Yours truly,

W. S. FRIZZELL.


Dr. Haas says this is only one of thousands of similar testimonials which come to him without solicitation, from all parts of the country.

It is evident from communications of this nature that Dr. Haas' Remedy is doing all that is claimed for it, and we think, with such a valuable preparation on the market, no swine raiser can afford to risk loss by failing to use the Remedy.

Mention The Southern Planter when writing advertisers.



Machine Made Potatoes



Iron Age (Improved Robbin's) Potato Planter. Iron Age Four Row Sprayer.

Do away with the expensive hand work and make-shift methods of potato raising. No crop is surer, easier or more profitable than the potato crop produced with the Iron Age Potato Machinery.

The Iron Age (Improved Robbin's) Potato Planter is the only planter performing absolutely perfect work. Drops 100 per cent. correctly. No d-dibles; no burrs. Fertilizer distribution, depth of planting and covering under absolute control.

IRON AGE POTATO MACHINERY


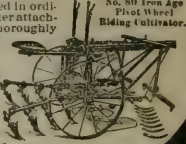
The Iron Age Four Row Sprayer is a potato crop necessity. Prevents damage by bugs and blight by economical application of spraying solution. Automatic pump and dasher. Adjustable to width of row, height of plants and pressure, or fineness of spray. Has orchard attachment.

The No. 80 Iron Age Cultivator has no superior in adaptability to varying crop and soil conditions. Specially adapted to the cultivation of potatoes.

The Iron Age Potato Digger is light in draft and thoroughly adjustable. Easily operated in ordinary soil by two horses. Elevator and shaker attachment for heavy soil and weedy crops. Thoroughly separates potatoes. Will dig the early crop without bruise or injury.

Our New Iron Age Book describes and illustrates our full line of labor saving implements, Seeders, Wheel Hoes, Cultivators, Horse Hoes, Fertilizer Distributors, etc. Free on application.

BATEMAN MFG. CO.,
Box 167, Grenloch, N. J.

Iron Age Potato Digger. No. 80 Iron Age First Wheel Blading Cultivator.



USE THE CULTIVATOR YOU NEED

to cultivate your corn, cotton, tobacco and all crops grown in rows. The disks can be adjusted at will to throw the soil to or from the plants and at the same time thoroughly pulverize the whole row, to cultivate shallow near the plants, deep between the rows. The

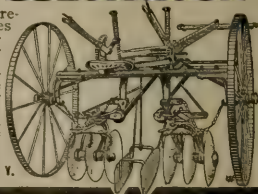
JOHNSTON

CONTINENTAL DISK CULTIVATOR

is always under perfect control, easy to operate, quick to respond, saves labor, increases your yield. The all-steel construction makes it light, compact, durable. Saves repair bills.

Has splendid stalk cutter attachment which materially adds to the value of the machine. Our cultivator folder tells how cultivator works, how it's built and why it will give you perfect satisfaction, and our 1906 catalogue illustrates the complete Johnston "Not in the Trust" tools for the farm. Write for the folder and catalogue today.

THE JOHNSTON HARVESTER CO., BOX 411, BATAVIA, N. Y.



ORGANIZED 1832.

ASSETS, \$1,056,360.54

Virginia Fire and Marine Insurance Company of Richmond, Va., Insures Against Fire and Lightning.

All descriptions of property in country and town, private or public, insured at fair rates, on Accommodating terms. AGENCIES IN EVERY TOWN AND COUNTY.

W. H. PALMER, President.

E. B. ADDISON, Vice-Pres't.

W. H. McCarthy, Secretary.

Material from the \$500,000 St. Louis World's Fair

Special to Readers of SOUTHERN PLANTER. Low prices on Lumber, Building Material, Merchandise, Machinery, Household Goods, etc.

NOW IS THE TIME TO BUY

supplies or materials you may need for contemplated improvements about your place. History repeats itself, and now after having disappointed every exposition of modern times, including the Chicago World's Fair, 1893; The Pan-American Exposition at Buffalo, 1901; The Trans-Mississippi Exposition at Omaha, 1899, and innumerable public buildings, we have purchased the \$500,000,000 St. Louis World's Fair and consequently have an immense stock of first class material of every kind and for every purpose. Shrewd purchasers who know a good bargain, and appreciate the quality of material used in the constructions of the most magnificent and expensive World's Exposition of modern times, are flooding us with orders. There is nothing used in the construction of a building of any kind, or for furnishing same, that we cannot supply. Look up your needs and get our catalogue. The prices speak for themselves. Tell us what you want. Every day finds our stock of big World's Fair bargains much smaller. Write today.

LOWEST PRICES ON LUMBER OF ALL KINDS

Including building material of every description from the St. Louis World's Fair. Here is your one chance to get a lumber bargain. Over 100,000,000 Feet of the finest Grades of Lumber were used in the construction of these grand exhibition palaces. Now offered at EXCEEDINGLY LOW PRICES. Time to buy lumber and building material is today. Don't delay. The supply is fast vanishing.

SEND US YOUR LUMBER BILL FOR ESTIMATE.
Save 30 to 50% if you buy at once.

Shedding, joists, planking, dressed and matched flooring, sheathing, timbers, in stock, lumber, and all other material of any kind, or for furnishing same.

ASK FOR OUR SPECIAL WORLD'S FAIR CATALOGUE.
Quick delivery. Besides lumber we have all kinds of saw door hardware, stock, iron, tinware, flags, pipes, tools, rattles, stables, railing, molding, iron rods, and thousands of other articles. Write today.

We are a branch office on the exposition grounds, St. Louis, Mo.

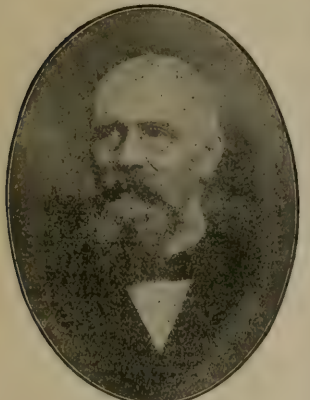
Extension Table \$10.25 CHAIR BARGAINS

Best selected oak, with finish. Oak finish, top 22 inches, plain 7 inches thick, curved, 6 ft. extension, each \$10.25. 500 beautiful box fashioned dining room or library chairs exactly like illustration. Can be had in English, Flemish or Weathered Oak finish. Seats of genuine leather. Oak finish, 10 ft. extension, last each \$9.80. Others at 90, 80, 70, and 60c.

LINOLEUM & CARPETS AT HALF PRICE

FROM THE FIFTY MILLION DOLLAR WORLD'S FAIR. Thousands of yards of beautiful linoleum and carpets included in our purchases of the various foreign, state and public buildings. Don't you recall the many rich furnished halls, fine iron car, rugs, etc. We have thousands of good things to offer you at this time. 1000 Yards Oil Cloth, good as new, excellent patterns, fine heavy body, various designs, 1 1/2 and 2 yards wide, per square yard, 19 cents. 3000 Yards and 4000 Yards Linoleum, stock quality, new, hard as stone, various patterns, 2 yard widths, medium quality, per square yard, 35 cents. 250 Floor Rugs, heavy texture, 6x9, each 40 cents. 2500 Yards Carpet, 12x12, 14x14, 16x16, 18x18, 20x20, 22x22, 24x24, 26x26, 28x28, 30x30, 32x32, 34x34, 36x36, 38x38, 40x40, 42x42, 44x44, 46x46, 48x48, 50x50, 52x52, 54x54, 56x56, 58x58, 60x60, 62x62, 64x64, 66x66, 68x68, 70x70, 72x72, 74x74, 76x76, 78x78, 80x80, 82x82, 84x84, 86x86, 88x88, 90x90, 92x92, 94x94, 96x96, 98x98, 100x100, 102x102, 104x104, 106x106, 108x108, 110x110, 112x112, 114x114, 116x116, 118x118, 120x120, 122x122, 124x124, 126x126, 128x128, 130x130, 132x132, 134x134, 136x136, 138x138, 140x140, 142x142, 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1390x1390, 1392x1392, 1394x1394, 1396x1396, 1398x1398, 1400x1400, 1402x1402, 1404x1404, 1406x1406, 1408x1408, 1410x1410, 1412x1412, 1414x1414, 1416x1416, 1418x1418, 1420x1420, 1422x1422, 1424x1424, 1426x1426, 1428x1428, 1430x1430, 1432x1432, 1434x1434, 1436x1436, 1438x1438, 1440x1440, 1442x1442, 1444x1444, 1446x1446, 1448x1448, 1450x1450, 1452x1452, 1454x1454, 1456x1456, 1458x1458, 1460x1460, 1462x1462, 1464x1464, 1466x1466, 1468x1468, 1470x1470, 1472x1472, 1474x1474, 1476x1476, 1478x1478, 1480x1480, 1482x1482, 1484x1484, 1486x1486, 1488x1488, 1490x1490, 1492x1492, 1494x1494, 1496x1496, 1498x1498, 1500x1500, 1502x1502, 1504x1504, 1506x1506, 1508x1508, 1510x1510, 1512x1512, 1514x1514, 1516x1516, 1518x1518, 1520x1520, 1522x1522, 1524x1524, 1526x1526, 1528x1528, 1530x1530, 1532x1532, 1534x1534, 1536x1536, 1538x1538, 1540x1540, 1542x1542, 1544x1544, 1546x1546, 1548x1548, 1550x1550, 1552x1552, 1554x1554, 1556x1556, 1558x1558, 1560x1560, 1562x1562, 1564x1564, 1566x1566, 1568x1568, 1570x1570, 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2118x2118, 2120x2120, 2122x2122, 2124x2124, 2126x2126, 2128x2128, 2130x2130, 2132x2132, 2134x2134, 2136x2136, 2138x2138, 2140x2140, 2142x2142, 2144x2144, 2146x2146, 2148x2148, 2150x2150, 2152x2152, 2154x2154, 2156x2156, 2158x2158, 2160x2160, 2162x2162, 2164x2164, 2166x2166, 2168x2168, 2170x2170, 2172x2172, 2174x2174, 2176x2176, 2178x2178, 2180x2180, 2182x2182, 2184x2184, 2186x2186, 2188x2188, 2190x2190, 2192x2192, 2194x2194, 2196x2196, 2198x2198, 2200x2200, 2202x2202, 2204x2204, 2206x2206, 2208x

A PIONEER CAPTAIN OF INDUSTRY.



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From the Forge to a Great Fence Plant.

One of the most interesting stories of pioneer manufacturers of the United States centers around Mr. J. Wallace Page, President of the famous Woven Wire Fence Co., of Adrian, Mich., with the growth of those immense business Mr. Page has been identified from the first.

In 1884, at which time woven wire fence was practically unknown, Mr. Page first began making and marketing what was later to be developed into the world famous Page Woven Wire Fence of to-day. During the past twenty-two years from 1884 until the present day, Mr. Page's whole life has been devoted to the up-building of this great industry. In 1886 the Page Woven Wire Fence Company was incorporated, with Mr. Page as its President, and a small fence factory was erected in Adrian. The marvelous development of the business since then is a story as interesting as any romance ever written. A full account of it would require several volumes.

But Mr. Page has been in no way spoiled by this remarkable success. His habits of life are as plain, simple and unassuming as when he built the first Page Fence on the old Page farm. The fence question is still his especial study, and his long experience in the business is at the command of every prospective buyer. Write him your fence needs. Your letter will have personal attention, and in addition, you will receive the company's printed matter which contains valuable fence information. Write to-day. Address your letter to Mr. J. Wallace Page, Box 651, Adrian, Michigan.

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DON'T judge my discovery, POWDR-PAINT, by the price.

Because it costs you only about 1/4 the price of lead and oil paints, don't get the idea that it will not give as good service.

For POWDRPAINT not only lasts long and looks well but it goes farther, its covering power is one-third greater.

As I can prove by many well-known users.

Here's why POWDRPAINT wears so well.

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It is based on the cement principle, as applied to paint.

You know Portland Cement when mixed with water, sets and becomes hard as stone, hence it is called "hydraulic" cement.

Oil paints stick to various surfaces on account of their peculiar adhesive qualities.

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Mix cold water with POWDRPAINT and it forms a hard, durable, enamel coating which will not dry out from the sun's heat and become soft and chalky.

Nor will it peel, check, blister or crack. But, like Portland Cement, it "stays put,"—Holds its shape year in and year out.

I was born and raised on a farm. And I know how expensive it is for the

Good Paint Without Oil at 1-4 the Cost

farmer to keep his buildings properly protected from the weather with oil paints.

POWDRPAINT is the best paint for barns, poultry, hog and sheep houses. It saves 1 in 4 the work and you and your hired man can easily do the work at odd times.

For painting inside of poultry houses, etc., to destroy disease germs and for use on fruit tree trunks to destroy insects, it has no equal.

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I also make DOUBLWEAR PAINT. A high-grade, ready-to-mix Oil paint, guaranteed for five years—at 1/2 less than the price of other paints not as good.

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I make jobs in my own factory and sell direct to users at a price ending cost of material and labor, plus one small profit.

You save all dealers' profits—and 1/3 the price.

If you have anything to paint this spring it will pay you to send for my free paint samples. State whether you want POWDRPAINT or DOUBLWEAR, and I will also send you a very interesting booklet filled with practical paint advice, showing just how you can save from 1/2 to 3/4 on your paint bills.

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"Paints that stay Painted."

PAINT is what you need. Do you know that PAINT will preserve and improve your property? PAINT will give your property a prosperous appearance. PAINT will increase the value of your farm. We have PAINT on hand for everything—PAINT for roofs and barns. LYTHITE COLD WATER PAINT. Carriage and wagon PAINT. Our "Standard" house PAINT is ready-mixed, and for the money no PAINT can surpass it. Write us for PAINT prices and color cards.

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However, none of these conditions hamper the farmer who is equipped with the Iron Age Potato Machinery made by the Bateman Manufacturing Co., of Grenloch, N. J. Their new Iron Age Book, which they will send free to any address, describes and illustrates a complete line of special machinery for planting, cultivating, spraying and digging potatoes, showing the full detail of construction and method of operation.



The cut shows the Iron Age Potato Digger; it was operated last year in sixteen different States under varying crop and soil conditions with entire success. May be operated as a low-down digger, or with elevator and shaker attachment. An unusual feature of its work is that it does not cut or bruise the potatoes in digging. This is a very important point in the digging of the early crop.

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Don't let your house, barns and other buildings go unpainted. It pays to keep them fresh and protected from the weather. Don't, however, pay double prices for paint. You can save from one-third to three-quarters in price by using the famous Powder-paint cold water paint for barns and buildings, and Doublewear Oil Paint for houses and interiors. You can buy them direct from the manufacturer and save middlemen's profits. Don't fail to send for free sample and color cards. Address, A. L. Rice, paint maker, 495 North street, Adams, N. Y.

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has stood the test of years, and gained its popularity by real merit, it can be had from any general merchant or druggist, at 25 Cents for a large bottle, made only by Gilbert Bros. & Co., Baltimore, Md. Insist upon having YAGER's and take no substitute.

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We have received one of the most attractive 1906 almanacs, gotten out especially for farmers. The front cover illustrates a farmer driving two horses hitched to a wagon loaded with vegetables and fruit; the back cover pictures a prosperous farmer standing beside a basket of ears of corn. This cover is lithographed in eight different colors.

The almanac contains nearly 200 pages, which include 70 whole pages of illustrations—some showing poor crops and others illustrating good crops and telling how to raise these good crops of cotton, tobacco, grains, trucks, clover, fruits and fruit trees.

There are many articles by leading agricultural men of the South, such as: Hon. R. J. Redding, Georgia Experiment Station; Cotton, Cowpeas, Clover and Fertilizers; Hon. Martin V. Calvin of Georgia, "Methods of Cultivating Cotton;" Prof. Hunter, U. S. Dept. of Agriculture, "Boll Weevil;" Prof. C. L. Newman, Clemson College, S. C., "The Southern Cowpea and its Value for Stock;" George H. Tucker, Memphis, Tenn., "Early Maturity and Increased Yields of Cotton;" Prof. D. N. Barrow, North La. Experiment Station, State University, Baton Rouge, La., "How and Why Commercial Fertilizers should be Used;" Prof. J. N. Harper, Clemson College, S. C., "The Maintenance of Soil Fertility;" William N. Roper of Virginia, "Peanut Culture;" E. E. Miller, Morristown, Tenn., "Some Essentials of Successful Wheat Growing;" Prof. J. R. Killebrew, Expert on Tobacco for 10th Census, "Tobacco, How to Cultivate, Cure and Prepare for Market."

Any of our readers may obtain a copy of this almanac by writing the Virginia-Carolina Chemical Co., at anyone of the following cities where their Sales Offices are located: Atlanta, Savannah, Ga., Montgomery, Ala., Memphis, Tenn., Durham, N. C., Charleston, S. C., Shreveport, La., Norfolk, Richmond, Va., Baltimore, Md.

FREE INFORMATION IN POULTRY RAISING FOR PROFIT.

The Sure Hatch Incubator Company, having offices at Clay Centre, Nebr., and Indianapolis, Ind., occupy a position of great importance in the poultry raising industry, and their business keeps them in touch with 60,000 people who are operating Sure Hatch Incubators with profit.

An experienced poultry raiser gives his entire time to answering questions and helping people to get started right getting more money out of their poultry.

If you want to learn the latest scientific methods of testing and handling eggs, raising poultry, feeding, protecting from vermin, etc., etc., this company will give you correct information—the boiled-down results of the experience of the Sure Hatch Company and its army of patrons.

Of course, if you ask this man to recommend an incubator, he will advise you to buy a "Sure Hatch," but you are under no obligation to do so unless your own judgment tells you that it is the most simple, practical and successful machine.

In addition to the free instruction, the Sure Hatch Catalogue and Poultry Manual can be obtained free, by addressing a postal to the Sure Hatch Incubator Company, Clay Centre, Neb., or East Washington street Indianapolis, Ind.

Mention THE SOUTHERN PLANTER in writing.

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NO machine within its reach is capable of doing so much for the farmer as the modern manure spreader.

But then it must be a machine with features of economy and efficiency.

The I. H. C. Manure Spreader has such features.

Any man of experience knows that a spreader only works perfectly when the load is level.

The I. H. C. Spreader is the only spreader with a vibrating rake in front of the beater or cylinder which levels every load and any load of manure.

Any man knows that the apron operates better when power is applied at both sides.

The I. H. C. spreader apron is driven at both sides from both hind wheels.

This saves all torsion, binding, friction and undue strain, and consequently saves breakages and results in lighter draft.

One lever is better than many levers in operating any machine.

The I. H. C. spreader is the only spreader which is controlled and operated entirely with one lever.

It has ten different feeds—can be adjusted

instantly while in motion to spread three to thirty loads per acre.

Large, solid, steel axles front and rear—front wheels cut under—turns very short.

Steel wheels—no rotting or drying out. Broad faced tires with turned in flange to keep out dirt, mud, etc. Lightest and strongest.

Provided with traction lugs on rear wheels—will work perfectly on hard, frozen or wet ground.

Made in various sizes to suit all requirements.

The I. H. C. spreader will distribute perfectly manure of all kinds—wet, dry, mixed, straw, full of stalks, frozen, caked, etc.

It may be equipped with special features known as lime and drill attachments for distributing broadcast, or in drills, fine manure, commercial fertilizers, lime, ashes, salt, cotton seed hulls, land plasters, etc.

Remember what we have told you—it is the manure spreader with special features which all make for success.

Go to the International Local Agent and look it over, get and read the catalogues or write for further information. It will pay.

International Harvester Company of America,
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Chicago, Illinois, U. S. A.

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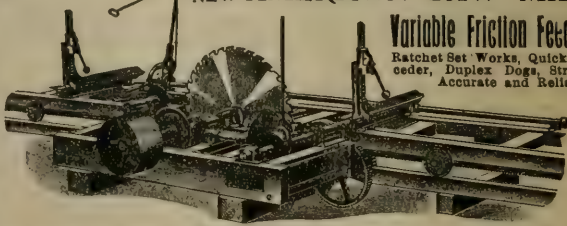
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Variable Friction Feed

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Best Material and Workmanship, LIGHT RUNNING, Requires Little Power, Simple, Easy to Handle, Won't Get Out of Order.

With 4 H. P. Steam or Gasoline Engine Guaranteed to Cut 2,000 Ft. Per Day \$150 Buys it on cars at factory, Freight Very Low.

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Practical up-to-date INSTRUMENTS that any one can use Recommended by Professional men of repute and by the most progressive farmers of the country for TERRACING, IRRIGATION, DRAINAGE, and BUILDING purposes. Price \$10.00 and \$20.00, including Telescope, Tripod and Rod.

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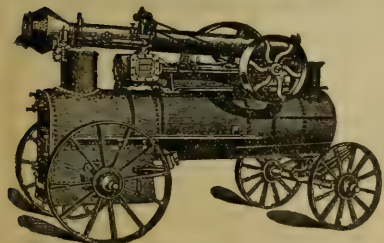
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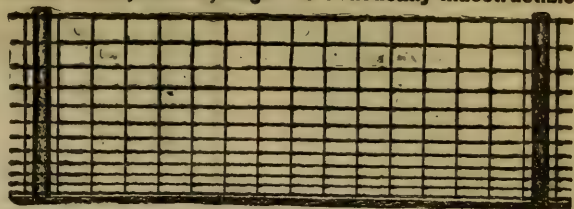
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Stands Like a Stone Wall

Turns Cattle, Horses, Hogs—Is Practically Indestructible



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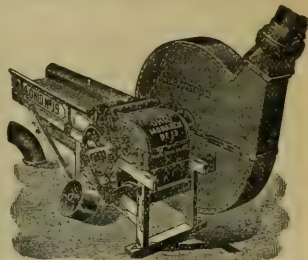
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We can show you this fence in our stock and explain its merits and superiority, not only in the roll but in the field. Come and see us and get our prices.

We are also prepared to fill orders promptly for **GALVANIZED BARB WIRE** and **PLAIN WIRE** of all sizes at lowest market price.

Shellap Asphalt Roofing can be laid over shingles or any rough surface. Will not require attention for 10 years. A cheaper Roofing than the V Crimp at the same time a most satisfactory roofing. Samples mailed on application.

CLARK'S CARRIAGE HEATERS will keep your feet and body warm while driving the coldest day. A great necessity as well as comfort. The coal used costs one half a cent per hour, and gives a steady, uniform heat that can be adjusted to any degree desired. No gas, flame, smoke or odor. Price \$1.75, \$3.00 and \$3.50, according to finish.



THE OHIO CUTTER with blower attachment has no equal for filling silos. The blower will carry the green ensilage to any desired height without choking. Hand or power cutters furnished at low prices. The Ohio Cutter is one of the best machines of the kind manufactured. Send for special catalogue.

The Blizzard Storm Front makes a closed carriage out of your regular buggy and can be put on in less than one minute. It is worth many times its cost one rainy day.

Price \$2.50, \$3.25 and \$4.00 according to quality.



WASHINGTON'S BIRTHDAY.

(Mary Washington.)

The approach of Washington's birthday carries my memory back to Feb. 22d, 1858, when Crawford's grand statue of "The Father of his Country," was unveiled at Richmond, Va., with appropriate ceremonies.

The weather was most inauspicious. It alternately snowed, hailed and sleeted, to the great chagrin of the Richmond people and the thousands of visitors who had congregated in the city to witness the inauguration. The ceremonies were carried on as well as practicable, under such untoward circumstances. The procession formed consisting of troops belonging to the city and others from various Virginia cities, and the cadets from the Virginia Military Institute. They marched through the principal streets, and took their stand on the Capitol Square, where the statue was placed on a great pedestal, encircled with statues of Patrick Henry, Mason and other illustrious heroes, contemporary with Washington. The ode on the occasion was composed and recited by John R. Thompson, a distinguished scholar, poet and editor of Richmond. Henry A. Wise (then Governor of the State), delivered the address and lastly James Barron Hope (another Virginia poet, just rising then into eminence), recited a poem of his own composition. But, I can but think that no matter how great a glow of patriotism animated the hearts of the by-standers, they must have experienced a feeling of relief when the ceremonies were over, and they were at liberty to seek shelter from the pelting sleet.

The first public observance of Washington's birthday was in Winchester, Va., in 1779, and later in Cambridge, Md., the 11th of February being celebrated in both cases. One of the most interesting observances of the occasion was the fete which Count Rochambeau gave his army on Monday, Feb. 12th, 1781, at Newport. In honor of Washington, though the latter was not able to be present, which occasioned the French commander to write him, "We will celebrate with the sole regret that your excellency be not a witness to the gladness and effusion of our hearts." Washington replied from camp. "The flattering distinction paid to the anniversary of my birthday is an honor for which I dare not attempt to express my gratitude. I confide in your Excellency's sensibility to interpret my feelings for this and for the oblique manner in which you are pleased to announce it."

In 1790, the Order of the Society of the Cincinnati marched in a body to the executive mansion to congratulate the president, who was also their president-general. By this time, the observance of Washington's birthday had grown quite general over the country, though by the introduction of a new calendar, the day became the 22d of

TOOLS

The name Keen Kutter

eliminates all uncertainty in tool buying.

As this brand covers a complete line of tools, all you need remember in buying a tool of any kind is the one name Keen Kutter.

Keen Kutter Tools are without reserve or qualification the best tools that money, brains and skill can produce. No matter how much you pay, no matter who you may have thought to be the best maker of a particular kind of tool, you cannot get any tool, anywhere, better than those sold under the name of Keen Kutter.

If your dealer doesn't keep Keen Kutter tools write us and we will see that you are supplied.

KEEN KUTTER

Tools received the Grand Prize at the St. Louis Exposition—the only such award ever given a complete line of tools.

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Chisels, Knives of all kinds,
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SIMMONS HARDWARE COMPANY

St. Louis, Mo.

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SAVE HALF YOUR TIME



The most successful farmers and gardeners are doing it all over the world today by using the *Pilest Jr.* line of farm and garden tools. And the gain is not alone in the saving of time, for they do the work faster, easier and better than it can possibly be done in any other way. For example, take our No. 8, Horse Hoe. It is a hoe and cultivator combined. Has high, stiff steel frame; interchangeable, non-clogging standards; adjustable handles, reversible hoes, etc. A convenient lever adjusts the side beams to fit wide or narrow rows. It is a perfect one horse cultivator for corn, potatoes, cotton—indeed all crops planted in rows. Then again there is our *Pilest Jr.* No. 28. It is a Hill and Drill Seeder, Double Wheel Hoe, Cultivator and Plow combined. Looks like a lot of things to combine in one tool, but they are all there and all work perfectly. Sows all garden seeds in continuous rows or drops in hills, 4, 6, 8, 12 or 24 inches apart, at the same time marking the next row.

Hoes and cultivates any desired depth, killing all weeds, opens furrows, throws up ridges, etc.

Goes astride or between the rows throwing the earth to or from as desired. Can be adjusted in a moment for any work on any crop. These are but two out

of 45 fine and labor saving *Pilest Jr.* tools. Our new catalogue

shows Seeders, Wheel Hoes, Horse Hoes, Barrows, Riding Cultivators—one and two row—Beet Cultivators, etc. This book will

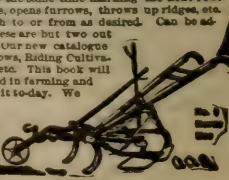
delight and instruct everyone interested in farming and

gardening. Be sure and write for it today. We

mail it free on request.

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When corresponding with our advertisers always mention the
SOUTHERN PLANTER.

WHAT WOULD YOU DO WITH THIS \$1,000?

WE hereby agree to pay you \$1,000 in cash if we do not have the original letters, of our testimonials, on file in our office open for public inspection. We have many thousands, similar to those given below, and they are from people who would no more sign a misleading statement than you.

MADE \$365.00 PROFIT IN THE VALUE OF ONE COLT.

Minneapolis, Minnesota.
DEAR SIR:—A few months ago I purchased an Arion colt in Kentucky for \$25. This colt was poor and undersized and certainly not very promising. We commenced feeding him "International Stock Food" every day with his grain and this fall could have sold him for \$600, but consider him worth more money. I cannot guarantee such great results in every case but will guarantee that its use will always pay you a big extra profit. I also want to assure you, personally, that Dan Patch has eaten "International Stock Food" every day for over 3 years and you know what he has done. Also that my other stallions Crescens 2-02½, Directum 2-05½, Arion 2-07½, Roy Wilkes 2-06½, Ed Patch 2-08½, Buttonwood 2-17 and my hundred brood mares and colts eat it every day. You will find it very profitable to use for your horses, colts and all other stock.

M. W. SAVAGE.

DAN PATCH 155¢ MAILED FREE

We have a Beautiful 6 Color Picture of our Champion Pacer, Dan Patch 1:55½, size 16x24. This picture is entirely free of advertising and makes a fine picture for framing, as it gives all the records made by the pacing wonder. We will mail you one free, postage prepaid, if you will write us how much stock you own and name this paper. Write at once to

International Stock Food Co., Minneapolis, Minn. U.S.A.

INCREASES THE MILK, SAVES THE CALVES.

INTERNATIONAL STOCK FOOD CO.

Marion, Iowa.

DEAR SIR:—I have used several kinds of stock foods but have never fed any equal to "International Stock Food". I have been feeding it to my milk cows with the most gratifying results. It not only keeps the cows in a healthy condition, but greatly increases the quality as well as the richness of milk. Its effects are unequalled in removing any irregularities at calving time, and as usual before and after calving I consider a great benefit. As an appetizer, blood purifier and general tonic, I consider it to be all you claim, and the best I have ever used. HENRY L. ALLEN, Prop. So. Side Dairy.

21 PIGS FROM ONE SOW— 52 PIGS FROM 3 SOWS.

INTERNATIONAL STOCK FOOD CO.

Merrimac, Massachusetts.

DEAR SIR:—I have three sows and one farrowed 21 pigs, another 16 and the other 15. I fed these sows "International Stock Food", and it is splendid for sows and pigs. I also tested it for a little runt and in seven months, "International Stock Food" made this runt weigh 225 pounds. Yours truly, NICHOLAS G. KINSMAN.

February instead of the 11th.

Washington's last birthday was passed at Mt. Vernon, and was the occasion of the marriage of his step daughter, Nellie Curtis. It was a very happy and festive day, for he had laid aside the burdens of State, and was surrounded by friends and relatives who assembled, both to do him honor and to witness the marriage ceremony between his beautiful and accomplished step-daughter and Major Lawrence Lewis. Washington gave away the bride who entered the room leaning on his arm, and adorned with a magnificent lace veil, fastened by a snowy plume which had been sent from Europe to the General. He died near the close of this year, and on his next birthday, February 22d, 1800, his funeral obsequies were celebrated at the Capitol of the country, and in every city and town. Dr. L. F. Smith, (author of "My County 'tis of Thee"), wrote very justly of Washington,

"Honored and loved, the patriot and the sage,
Born for thine own and every coming age,
Thy country's champion. Freedom's chosen son,
We hail thy birthday, glorious Washington."

After the War of 1812, it became customary to celebrate Washington's birthday by public parades. I have heard people of a generation of two

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IN WEST CENTRAL KENTUCKY.

Rich, fertile and in high state of cultivation. Land well improved; neighborhood the best; fine schools and churches; excellent pikes and railroad facilities.

We Have 2100 Acres; Will Sell in Tracts to Suit Buyers.

Different farms have well built homes of from 4 to 10 rooms each, good out buildings, running water in barns. All well stocked, such as Cattle, Hogs, Sheep and Mules. Engines for feed cutting, etc. Easy terms—small cash payments—balance to suit buyer. An exceptional opportunity to secure a fine Central Kentucky farm at a very reasonable price. For full particulars, price, etc., call on or write to

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VIRGINIA FARMS

ALL SIZES AND LOW PRICES.
\$5 to \$25 per Acre.
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Farm Levels, Road Levels, Architects Levels, etc.
Levels especially designed for TERRACING, DITCHING, DRAINAGE, IRRIGATION, RICE CULTURE, and also for ROAD BUILDERS, CONTRACTORS, etc. Levels which are the latest improvements and that are simple, durable, accurate and also very easy to adjust, correctly and to operate. Prices range from \$5. to \$35, depending on the attachment, size of telescopes, etc. We build the level that suits your purpose and that will satisfy you in quality and price. Write for our complete catalogue and let us show you their several advantages.

BELYEU LEVEL CO., Alexander City, Ala.

past, speak of the grand masonic balls that used to be given on the 22d of February. We do not hear of these nowadays, but there are many other ways of observing and honoring the day.

NINE "DON'TS" FOR WOODLOT OWNERS.

There is a right way to do everything, and the care of the woodlot is not an exception to the rule. The right way, moreover, is often quite simple, the good results which follow being out of all proportion to the time or labor expended. Too many woodlots are simply neglected, and by far the greater number of them are misused for want of foresight or a true appreciation of their value.

The first principles of right woodlot forestry may be summarized in a brief list of Don'ts, by which every woodlot owner may profit with very little trouble.

Don't dispose of your woodlot. You need it for your own use. It can be made to give you fuel, posts, poles, fence rails, even such timber, boards, and shingles as will keep the farmstead and barns in repair. With a little encouragement, its value for home supply will increase year by year. While you use it, it will renew itself, and the price of its products are certainly not decreasing.

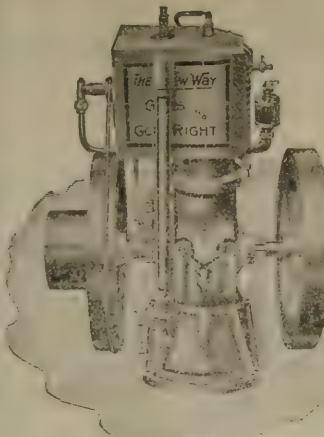
Don't turn your woodlot into a pasture. Tree seedlings are quickly bruised and crushed by the trampling of live stock. Hungry cattle browse upon them. The soil becomes packed hard and unable to retain moisture so much needed for the encouragement of young growth.

Don't thin your woodlot too heavily. If you do, large openings are made through which the sunlight streams in, drying the soil and encouraging the growth of grass, which should never be suffered to replace the spongy humus that forms the natural top layer of soil in a healthy forest. A crown canopy, formed by the leaves and branches, should always shade the forest floor. Too much light encourages the formation of branching, short-stemmed trees.

Don't burn over the woodlot. It has been pointed out that the woodlot is not fit for pasture purposes, but even if it were, the burning over of the soil would still do irreparable damage to young growth, consume the litter which ought to rot into humus, and destroy the very conditions which nature seeks to establish and preserve.

Don't select only the best trees in a woodlot which needs weeding. Nearly every woodlot is composed of a mixed stand in which dead and unsound trees, weed trees, and sound, useful trees are intermingled. If you select and remove only the choicest living trees, the stand will grow poorer instead of better, and in time will become almost worthless. An improvement cutting which, even at a

Here is the "New Way" Air Cooled Gasoline Engine.



"THE FAN KEEPS IT COOL"

LLOYD R. PEERY, Eastern Sales Agent.

SIX REASONS WHY

YOU SHOULD BUY IT:

- 1.—No Water Tank to empty and fill daily in freezing weather.
- 2.—No water to freeze and break water jacket or cylinder and thereby cause a large expense for repairs.
- 3.—No water to form lime in the water jacket and obstruct circulation.
- 4.—No cylinder gaskets to leak compress or blow out.
- 5.—No carburetor gasket or carburetor needle valve.
- 6.—The oil from one cup lubricates piston, cylinder and all bearings automatically and with certainty.

The greatest specialty in a gasoline engine for the use of farmers that is on the market.

Write for our Special Introductory Proposition to first purchaser in each county.

Agents Wanted Everywhere. Exclusive Territory. Write for Catalog and Testimonials.

STEPHENS CITY, VIRGINIA.



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Harvester Co.

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BOX 111 Batavia, N. Y.

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MATTHEWS' "NEW UNIVERSAL"

6 TOOLS IN ONE

Seeds: marker, hoe, rake, plow, cultivator, Single or double chisel. Adjustments easily made. For planting and all kinds of cultivation. Send for FREE BOOKLET of valuable information for planting and cultivating the garden and full description of these implements.

AMES PLOW COMPANY, 56 MARKET STREET, BOSTON, MASSACHUSETTS

6 Styles Seeders

Opens furrows, drops seed in place, rakes, covers, dandles. Models of Accuracy.

GARDEN TOOLS

Double or Single Wheel Hoe

Cultivator, Plow, Rake, Change quickly made. Cultivate both sides of the row. Any depth, any width.

Note High Arch and Plant Guards Bent Oak Handles on all Tools.

For Sale by GRIFFITH & TURNER CO., BALTIMORE, MD.

little cost, removes the weed trees and those which are dead, crooked, or otherwise of little worth, will give the remaining stand a clear start. The woodlot quickly responds to such treatment, improving vigorously under the new conditions. The larger yield of better quality in due time more than repays the labor.

Don't forget reproduction. In thinning your woodlot, have an eye to the young growth. Spare it as much as you can in felling and hauling the logs. Give the seedlings the chance, and they will seize it and grow into saplings and poles. Saplings and poles are already valuable, and a little later still are themselves grown trees.

Don't do all your cutting in one spot, just because it is a trifle more convenient to do so. By taking a tree here and there, where it can best be spared or is actually better down, you will secure just as much wood, and at the same time draw as lightly as possible on your future supply. Where the stand is composed of old trees you may, of course, often make clear-cutting to advantage, especially when neighboring seed trees will reseed the opening to a new crop.

Don't let the carelessness of other persons do the damage to your woodlot by fire which you refrain from doing yourself. A fire in a neighboring field may creep into your woodlot and burn over it, scorching the trunks of the trees or even setting the crowns ablaze. It is worth while, in the dangerous season, to see that the borders of the woodlot are clear of inflammable material. Especially clear away the leaves so as to form a miniature fire lane about the forest. Forbid the careless use of matches and the building of camp fires, and see that your directions are obeyed.

Don't be in too great a hurry to realize on your woodlot investment. Be satisfied with a permanent revenue, which is the interest on your forest capital. You may materially increase this interest by managing the woodlot itself so that the thinnings always bear a wise proportion to the yield. Meantime the steady rise in the value of all forest products will add little by little to the market value of your timber. Years hence, when you need it, the woodlot which has supplied you all along will in all probability bring you far more than at present. Or you may leave it to your children, who in turn will find it a most acceptable bank account.

EFFICACY PLUS PRAYER.

Ethel, one of New Hampshire's seven-year-old daughters, is devoted to the birds. She was enraged at her older brother, whose keenest enjoyment seemed to be to trap them. She pleaded with him and scolded him, but all to no effect. So Ethel took a new tack.

When prayer time came the other evening, her mother heard this final petition added to those which dealt di-

A POWER on Every Farm

THERE should be a power of some kind on every farm.

It saves labor, time and money, and increases the earning capacity of the farm.

It will work the raw material of the farm into a finished product.

All up-to-date farmers agree that the modern gasoline engine is the best farm power.

Our I. H. C. gasoline engine is the best gasoline engine.

It is strong, durable, long lived and is of full rated, actual (not estimated) horse power.

It is easy to operate and is easily kept in working order.

It develops the maximum of power with the minimum of fuel.

Specially adapted to cutting dry fodder and ensilage, husking, shredding and shelling corn; threshing

and grinding feed; sawing wood, separating cream, pumping water, etc.

Indeed there is no service required of a power that will not be performed most satisfactorily by this engine.

I. H. C. gasoline engines are made in the following styles and sizes:

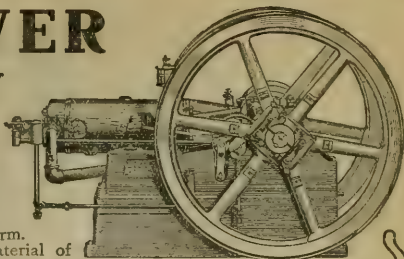
Vertical—2, 3 & 5 Horse Power;

Horizontal—(Portable and Stationary), 4, 6, 8, 10, 12 & 15 Horse Power.

If you are not intending to purchase an engine now, you may want one in the future and really ought to know more about them.

Call on our Local Agent, let him show you the engines and supply you with catalog, or write for further information. Do it now.

INTERNATIONAL HARVESTER COMPANY OF AMERICA, CHICAGO, ILL.
(INCORPORATED.)



The Art of Fine Plumbing

has progressed with the development of the science of



sanitation and we have kept pace with the improvements.

Have you? Or is your bathroom one of the old fashioned, unhealthy kind?

If you are still using the "closed in" fixtures of ten years ago, it would be well to remove them and install in their stead, snowy white "Standard" Porcelain Enamelled Ware, of which we have samples displayed in our showroom. Let us quote you prices. Illustrated catalogue free.

SYDNOR PUMP & WELL CO., Inc.

Box 949, Richmond, Va.

Good Plumbing, good Wind Mills, Gasoline engines, Rams and water supply equipment spells great comfort for the country resident. Try us.



Water Supply for Country Homes

PUMPS WATER BY WATER POWER.

RIFE AUTOMATIC HYDRAULIC ENGINE.

No Attention. No Expense. Runs Continuously.

Complete System Extending to Stable, Greenhouse, Lawn, Fountains and Formal Gardens.

Operates under 18 inches to 40 feet fall. Elevates water 80 feet for every foot fall used. Eighty per cent efficiency developed. Over 5,000 plants in successful operation. Large plants for towns, institutions, railroad tanks and irrigation. Catalogue and estimates free.

RIFE ENGINE CO., 126 Liberty St., N. Y.

rectly with the spiritual and material welfare of the family "An', dear God, please smash all Willie's nasty traps, for Jesus' sake, Amen."

"Ethel, dear," said mother seriously, "do you really think that last is a nice thing to ask God to do? Do you expect Him to do such a thing as that?"

Ethel smiled beamingly and answered: "Oh, that'll be all right, muzzer. Jes before I comed up-stairs I smashed them all my own self."—Warwick James Price in February Lippincott's.

THE AMERICAN REVIEW OF REVIEWS.

Contents for February, 1906.

The New British Premier at Work, Frontispiece. The Progress of the World: Is Witte the "Prop of Autocracy?" The Duma Postponed. The Hopeful Sign. Cabinet-Making in Japan. Japanese-Chinese Relations. Other Foreign Events of Interest, with portraits and other illustrations.

Record of Current Events, with portraits and other illustrations.

Cartoon Satire on Current Events.

The French Presidency and the American, by Munroe Smith, with portrait of Clement Armand Fallieres.

Viscount Aoki, Japanese Ambassador, with portrait.

How Science Helps Industry in Germany, by Henry S. Pritchett.

President Harper and His Life Work, by John H. Finley, with portrait of President William R. Harper.

A Great Citizen of Georgia, by Albert Shaw, with portrait of Chancellor Walter Barnard Hill.

The South's Amazing Progress, by Richard H. Edmonds, with illustrations.

The Development of Our Gulf Ports. By Robert Wiekilffe Woolley, with illustrations.

How Galveston Secured Protection Against the Sea, by W. Watson Davis, with illustrations.

The Growth of Southwest Texas, with illustrations.

Building Up a State by Organized Effort, by Hamilton Wright, with portrait and other illustrations.

Leading articles of the month. Briefer notes on topics in the periodicals. The new books. With portraits.

The South's remarkable industrial development is mirrored in the February Review of Reviews, in which a group of writers headed by Richard H. Edmonds, the well-known editor of the *Manufacturers' Record*, of Baltimore, describes the contemporary progress of that section, giving special attention to the recent growth of the Gulf ports, the wonderful story of Galveston rescued from an encroaching sea, and the latest phases of the boom in Southwest Texas.

When corresponding with our advertisers, always mention *The Southern Planter*.

RUBEROID ROOFING



STANDARD FOR 14 YEARS.

The oldest prepared roofing on the market, and the first Ruberoid Roofs laid, many years ago, are still giving satisfactory service under the severest climatic and atmospheric conditions.

Contains no tar or paper; will not melt, or tear. Acid fumes will not injure it.

Outlasts metal or shingles. Any handy man can apply it.

There is only one Ruberoid Roofing, and we sell it. You can verify its genuineness by the name on the label and on the under side of every length of Ruberoid Roofing. Send for samples and booklet.

A large stock of Corrugated and V. Crimp Roofing always on hand.

Southern Railway Supply Co.,

1323 East Main Street,
RICHMOND, VA.

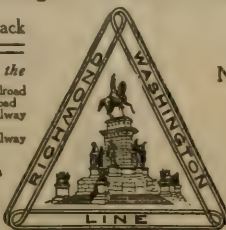
Richmond, Fredericksburg & Potomac R. R. and Washington Southern Railway

The Double-Track
Link

Connecting the

Atlantic Coast Line Railroad
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Chesapeake & Ohio Railway
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Seaboard Air Line Railway
Southern Railway

Between All Points
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W. P. Taylor, Traffic Manager

The Gateway

between the
North and the South



Fast Mail
Passenger
Express and
Freight Route

BOOKS AND PAMPHLETS

Sheep Farming in America. By Joseph E. Wing. Sanders Publishing Co., Chicago, Ill. This is a most excellent work by a recognized authority on the subject, and ought to be in the hands of every sheep keeper. We can supply the same. Price, \$1.

A Pocket Manual of Plant Diseases. James Good, 939 N. Front St., Philadelphia, Pa.

Eggs, Broilers and Roasters. An easy lesson in practical poultry culture. By Chas. A. Ciphers. Buffalo, N. Y.

Grass Growing for Profit. By William S. Myers, 12-15 John St., N. Y.

CATALOGUES.

Peter Henderson & Co., 35 and 37 Cortlandt St., New York City, Seedsmen. Everything for the garden. A beautiful catalogue.

J. M. Thorburn & Co., 36 Cortlandt St., New York City, Seedsmen. 105th annual catalogue of High Class Seeds. A fine catalogue from the oldest seed house in the country.

J. G. Harrison & Sons, Berlin, Md., Nurserymen. See ad in this issue.

Iowa Seed Co., Des Moines, Iowa, Seedsmen.

W. F. Allen, Salisbury, Md. Choice strawberry plants and good things for the farm and garden

T W Wood & Sons, Seedmen, Richmond, Va. High class seeds. Guide for the farm and garden. A beautiful catalogue. See ad in this issue.

B. F. Messick & Son, Allen, Md. Choice strawberry plants.

California Rose Co., Los Angeles, Cal.

International Harvester Co., Chicago, Ill. Osborne, Champion, McCormick, Plano, Deering, Milwaukee. Harvesting Machinery.

The Johnston Harvester Co., Batavia, N. Y. Harvesting Machines.

The Ohio Carriage Manufacturing Co., Cincinnati, Ohio. Catalogue of Split Hickory Vehicles. A splendid catalogue, containing particulars of scores of different kinds of vehicles sold direct to the buyer. See their ad. in this issue.

S. L. Allen & Co., Philadelphia, Pa. Planet, Jr. Farm and Garden Implements. Well-known implements. Always needed, always good.

Batemann Manufacturing Co., Grenloch, N. J. Makers of the well-known Iron Age Implements. Needed on every farm. See their ad. in this issue.

Fetzer & Co., Middletown, Ohio. Transplanting machinery for setting tobacco and other plants. Corn drills, etc.

Lloyd R. Peery, Stephens City, Va. Gasoline engines.

Sure Hatch Incubator Co., Clay Center, Neb. Incubators.

Chas. E. Cyphers, Buffalo, N. Y. Model Incubators and Brooders.

Frank Iams, St. Paul, Neb. Black Pehcherons, Royal Belgians, German and French, Couchers.

PERUVIAN GUANO

A Complete Natural Manure.

We have imported during the 1904-1905 fertilizer season over 30,000 tons of this splendid natural manure, a large part of which was sold in the Southern States.

PERUVIAN GUANO is a natural manure, free from all chemical treatment, and not only contains a high percentage of plant food in the choicest forms, but a larger quantity of organic matter which improves the condition of your land.

We are importing this Guano from two deposits at Lobos de Tierra. That from the older of the deposits contains a high percentage of phosphoric acid, while the Guano from the more recent deposits runs high in ammonia.

The following analyses represent about the average from these two deposits:

Cargo Ex. S. S. Coya.	Cargo Ex S. S. Cella
9.30%.....Ammonia	3.55%
2.28%.....Potash	4.30%
9.50%.....Phosphoric Acid	22.40%
28.02%.....Organic Matter	14.36%

PERUVIAN GUANO, being a natural product, every cargo from the same deposit varies slightly, but the above analyses represent average cargoes. We shall be glad to supply exact guaranteed analysis of each cargo and to refer buyers to our nearest agent, or, if we have no agent in their locality, quote them prices f. o. b. at their nearest shipping point.

We have just gotten out a 76-page book on the "home mixing" of fertilizers, entitled PLANT FOOD PROBLEMS.

This book contains full information in regard to the various materials used as fertilizers; gives the formulas best suited to different crops and tells the farmer how he can buy the raw materials and mix his fertilizers at home, thereby saving at least five dollars a ton.

A request by postal addressed to our Charleston office will place this book in your hands.

Peruvian Guano a Superior Base for Home Mixtures.

Peruvian Guano is a material that commends itself strongly as the best possible base for home mixtures. By its use, the necessity for using a large number of materials in compounding is entirely done away with. Such materials as ground bone, tankage, dry ground fish, dried blood, sulphate of ammonia, etc., are not needed since the Peruvian Guano supplies all the plant food elements furnished by these materials, in choicest forms, and already intimately mixed and combined by natural processes.

Fertilizer Materials for Home Mixing.

In addition to Peruvian Guano we import the following materials which we sell in original bags, under guaranteed analyses, and ship directly from the vessel on which they arrive, thereby being able to quote the consumer practically the same price the fertilizer manufacturer has to pay.

Nitrate of Soda,	Nitrate of Potash,	Sulphate of Potash,
Muriate of Potash,	Kainit,	Basic Slag.

Trusting that you will decide to at least give **PERUVIAN GUANO** a trial and inquire our prices on other fertilizer materials before placing your order, we are, respectfully yours,

THE COE-MORTIMER COMPANY

33 BROAD STREET, - - CHARLESTON S. C.

Sydnor Pump and Well Co., Richmond, Va., Catalogue of Deming Co. Spray pumps, nozzles and appliances for spraying.

Virginia-Carolina Seed Peanut Co., Petersburg, Va. Peanuts selected for seed.

Va-Carolina Chemical Co., Richmond, Va. Almanac for 1906. A very useful almanac. Send for copy.

American Saw Mill Machinery Co., 114-118 Liberty St., New York City.

Cottage Grove Farm, Grensboro, N. C. Dairy Department

Forest Home Farm, Milton, Ind., Choice Aberdeen Angus Cattle.

Biltmore Farm, Biltmore, N. C. Special mid-winter offering of selected young Berkshire Boars and Sows.

UNINTENTIONALLY FRANK.

It was a typographical error that threatened to bring streaks of grey into the locks of the editor of a newly started weekly which purported to chronicle the doings of the smart set of a western city. In reality, however, it sold out the edition, and filled the readers with a desire to see what would develop in the succeeding numbers. The subject of the paragraph was a pink luncheon given by a well-known matron. When the edition was given to the public, it was found that the opening lines of general eulogy were followed by the bald statement, "The luncheon was punk."—H. C. Spooner in February Lippincott's.

PAIRED.

Said Mr. C., "In those days I was a Republican, and my friend R., who was the most penurious man in New England, was a Democrat. One day he said to me, 'C., have your committee been after you?'"

"Not yet," I replied.

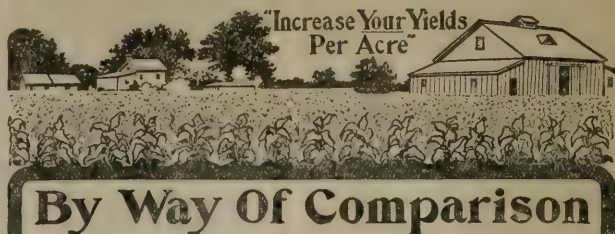
"Well, mine have been after me, and they wanted me to subscribe \$500, and I told them I would," said he.

"I looked at him in amazement. Then he added, 'I told them the Republicans would expect \$500 from you, and I was going to pair off! So, mind you stick to that engagement. It will be all the same to both parties, and it won't cost either of us a cent.'"—C. Q. Wright, U. S. N., in February Lippincott's.

HALLOCK'S O. K. ELEVATOR POTATO DIGGER.

We are very pleased to call attention to the advertisement of D. Y. Hallock & Sons, York, Pa., in which they are offering their new potato digger. This firm, as many of our readers know, are makers of the celebrated Hallock Weeder, and from the testimonials we have seen, we believe they have a greater success in this potato digger than they had in their weeder. Most liberal terms are offered to agents and we invite all potato growers to get into correspondence with this firm at once.

**"Increase Your Yields
Per Acre"**



By Way Of Comparison

At the bottom is a picture of a farm on which our fertilizers were not used. Notice the very poor growth? At the top, there is a photograph of the field of a planter who believes in the liberal use of only

Virginia-Carolina Fertilizers.

See the good, even stand, and tall, luxuriant plants? You can see many other interesting pictures of farms like these on which the crops of poor and good yields are compared, in our large, pretty almanac. Ask your dealer for it, or send us 6c. in stamps to pay the cost of wrapping and postage. "Increase your yields per acre" by using Virginia-Carolina Fertilizers. Buy no other.

Virginia-Carolina Chemical Company.



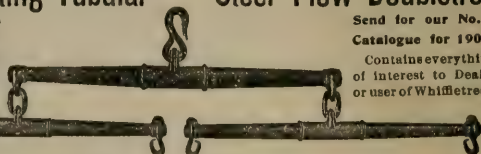
Richmond, Va.
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Baltimore, Md.

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Montgomery, Ala.
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The Everlasting Tubular Steel Plow Doubletree

Guaranteed not to break or bend. Furnished with rings or hooks for trace attachment. Sample orders sent to responsible parties on trial.



Send for our No. 8 Catalogue for 1906.

Contains everything of interest to Dealer or user of Whiffletrees.

PATTERN No. 105 EQUIPPED WITH FORGED TRIMMINGS.

Also manufacturer of Farm Wagon Doubletrees, Neck Yokes and Singletrees.

Pittsburg Tubular Steel Whiffletree Company,
SOLE MANUFACTURERS
PITTSBURG - - PENNSYLVANIA.

Do You Ship Apples?

If so, let us call your attention to the California and Oregon apple boxes, the coming packages for nice apples, particularly for foreign shipments.

SOUTHSIDE M'F'G CO., PETERSBURG, VA.

AYSHIRE BREEDERS' ASSOCIATION ANNUAL MEETING.

The 31st annual meeting of the Ayrshire Breeders' Association was held at the Yates Hotel, Syracuse, N. Y., December 20th, with about fifty breeders present.

The report of the Finance Committee showed a total amount of assets of the Association to be nearly \$10,000.

The election of officers resulted in the choice of George Wm. Ballou, Middletown, N. Y., President; Obadiah Brown, Providence, R. I. Vice-President; E. J. Fletcher, Greenfield, N. H., Vice-President; W. P. Schanck, Avon, N. Y., Vice-President; George H. McFadden, Byrn Mawr, Pa., Vice-President; C. M. Winslow, Brandon, Vt., Secretary and Editor; N. S. Winsor, Greenfield, R. I., Treasurer; George H. Yeaton, Dover, N. H., Auditor; S. M. Wells, Newington, Conn., Howard Cook, Beloit, Ohio, Executive Committee for three years.

The committee on home diary tests reported for the single cow test, a first prize of \$30.00 to George H. Yeaton, Dover, N. H., on the cow Miss Olga, giving 10,192 lbs. of milk and 427 lbs. of butter. Second prize, \$20.00 to Henry Dorrance, Plainfield, Conn., on cow Molly Fryer, giving 9,152 lbs. of milk and 427 lbs. of butter. Third prize to C. M. Winslow, Brandon, Vt., on cow Acelista, giving 10,359 lbs. milk and 419 lbs. of butter.

Herd prizes, first to C. M. Winslow, Brandon, Vt., \$75.00 for herd of five cows, giving 39,844 lbs. of milk and 1,736 lbs. of butter. Second to Howard Cook, Beloit, Ohio, \$20.00 for herd of five cows, giving 36,826 lbs. of milk and 1,680 lbs. of butter. Third to George H. Yeaton, Dover, N. H., for herd of five cows giving 37,391 lbs. of milk and 1,630 lbs. of butter.

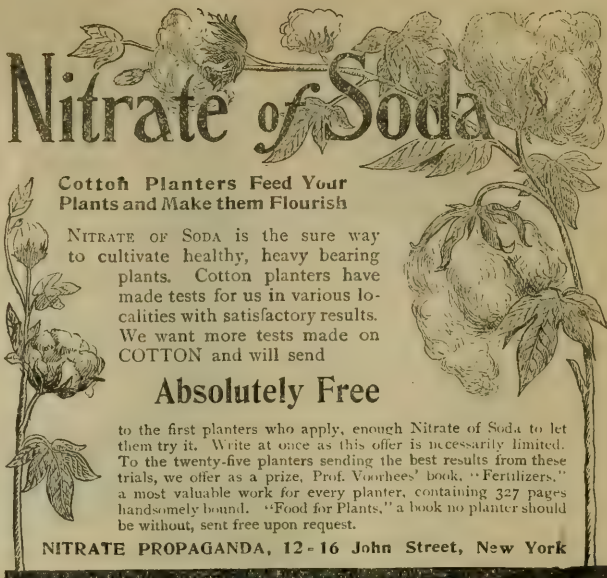
It was voted to continue the home diary test with the same appropriation. C. M. Winslow, George Wm. Ballou, Dr. Thomas Turnbull, Jr., and Prof. H. Hayward were elected for the Committee for the ensuing year.

The Association received a donation of \$1,500.00 from Miss C. A. French, North Andover, Mass., to be kept as the "French Fund" the income of which is to be expended in the purchase of cups or other silverware, and given as prizes for superiority in dairy production as determined by the home diary test.

Through the generosity of the Country Gentlemen we are able to offer another silver cup as a special prize in the home diary test.

The Association banquet at the Yates Hotel with forty-three plates was a most enjoyable affair, and as presided over by President-elect Ballou, there was brought out a very interesting and useful discussion on Ayrshire cattle.

When corresponding with our advertisers, always mention The Southern Planter.



Nitrate of Soda

Cotton Planters Feed Your Plants and Make them Flourish

NITRATE OF SODA is the sure way to cultivate healthy, heavy bearing plants. Cotton planters have made tests for us in various localities with satisfactory results. We want more tests made on COTTON and will send

Absolutely Free

to the first planters who apply, enough Nitrate of Soda to let them try it. Write at once as this offer is necessarily limited. To the twenty-five planters sending the best results from these trials, we offer as a prize, Prof. Voorhees' book, "Fertilizers," a most valuable work for every planter, containing 327 pages handsomely bound. "Food for Plants," a book no planter should be without, sent free upon request.

NITRATE PROPAGANDA, 12-16 John Street, New York

DEMING Power Spraying Outfit

A light, simple, practical gasoline engine outfit that sells at a reasonable price. Experienced fruit growers pronounce it by all odds the best power sprayer made. Entirely self-contained, ready for attaching hose, and easily mounted on wagon bed or tank wagon. Just the thing for the large operations of farmer, orchardist or park superintendent.

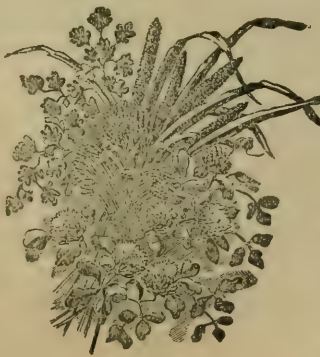
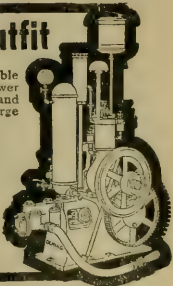
Send For Free Catalogue

of all sprayers, **Barrel, Bucket, Knapsack, Hand, Field, Etc.** Our line of sprayers is known everywhere for their efficiency and nice adaptability to all uses. Be sure to investigate before you buy.

THE DEMING COMPANY, 190 DEPT ST., SALEM, O.

A Deming outfit solves your spraying problems.

SYDNOR PUMP & WELL CO.,
Southern Agents, Richmond, Va.



W. A. Miller & Son,

1016 Main St. Lynchburg, Va.

—DEALERS IN—

Seeds, Fertilizers and Wool.

SEEDS. We sell every kind of seed for field and garden of best quality, and as low as same qualities can be bought in any market.

FERTILIZERS. We sell Fertilizers for every crop, under our own brands. All who have used our High Grade Tobacco Guano, Corn Grower, Wheat and Grass Fertilizers, Pure Raw Bone, and High Grade Acid Phosphate, analyzing from 14 to 16 per cent, pronounce them the best they have used.

WOOL. We buy all the year round, and PAY THE HIGHEST MARKET PRICES. Parties wishing to purchase will find it to their interest to see us before buying.

TWO NEW MEN FOR INTERNATIONAL STOCK FOOD CO. OF MINNESOTA.

W. C. Ellison, a well-known poultry judge and breeder and contributor to poultry publications, has just accepted a position of assistant manager of the Poultry Supply Department of the International Company. For the past three years he has conducted departments in the Poultry Gazette, Progressive Poultry Journal and Western Poultry Journal, and during the last year has represented Poultry Success in the field. Mr. Ellison is a thoroughly competent authority, as he has been a poultry fancier all his life and has studied the poultry industry in all of its branches.

A. P. Spencer, B. S., has also joined the International forces, and will be a valuable man in his line of work. He has been instructor in Animal Husbandry at the Virginia Agricultural College, and has had almost entire charge of the College barn. He has had a wide practical experience on the farm, and with the feeding and breeding of live stock, and was strongly endorsed for his present position by R. J. Davidson, Dean of the Scientific Department; D. O. Nourse, Prof. of Agriculture, and F. W. Hodson, Live Stock Commissioner, Department of Agriculture, Ottawa, Canada.

The International people have the habit of securing the best, and able work will undoubtedly be done in the office work of these two assistants.

THE MANY-SIDED PRINTER.

The versatility of printers is aptly illustrated by the following advertisement which recently appeared in a Western paper:

Wanted—By a printer who is capable of taking charge of a publishing and printing plant a position as foreman. Can give valuable advice to persons contemplating marriage, and has obtained a wide reputation as a trance medium. Would accept an appointment as pastor of a small evangelical church or as substitute preacher. Has had experience as strike-breaker and would take work of this character west of the Missouri River. Would have no objection to forming a small but select class of young ladies to teach them in the higher branches or to give them information as to the cause of the Trojan war. Can do odd jobs around a boarding house or would accept a position as assayer of a mining company. To a dentist or a chiroprapist his services would be invaluable, and can fill with satisfaction a position as bass or tenor singer in a Methodist choir. Address, etc.

What the result of this advertisement was I did not learn.—W. C. Jenkins in February Lippincott's.

Mention The Southern Planter when writing advertisers.



Fruit Trees 7½c

Why pay two prices for all kinds of nursery stock to cover agents' profits and bad debts, when we, by employing no agents and making no bad debts—selling for cash direct to the people at lowest wholesale rates—will save you half? Twenty-one years experience. 1,000,000 high class fruit trees, \$50,000,000 strawberry plants. Special bargains in peach trees. Safe and cheap delivery anywhere in U. S. Catalogue free. Valuable book on fruit growing free to buyers. Cabbage Plants now ready.

Strawberry Plants

\$1.25 per 1000

Write to-day for catalogue. Mention this paper. Address Dept. E. CONTINENTAL PLANT CO., Kittrell, N. C.

Headquarters for Nursery Stock.

WHOLESALE
AND
RETAIL.

We make a specialty of handling dealers' orders.

ALL STOCK TRUE TO NAME.

Apples,	Nectarines,	Pecans,	Ornamental and
Pears,	Cherry,	Chestnuts,	Shade Trees,
Peach,	Quinces,	Walnuts,	Evergreens,
Plum,	Almonds,	Small Fruits,	Roses, Etc
Apricots,			

CALIFORNIA PRIVET, for Hedging.

WRITE FOR CATALOGUE.

... AGENTS WANTED. ...

FRANKLIN DAVIS NURSERY CO., Baltimore, Md.

..ELMWOOD NURSERIES..

—We are growers and offer a fine assortment of—

APPLES, PEACHES, PEARS, CHERRIES, PLUMS, APRICOTS; NECTARINES, GRAPEVINES in large assortments, GOOSEBERRIES, CURRANTS, STRAWBERRIES, HORSE-RADISH, ASPARAGUS, DEWBERRIES, and an extra lot Raspberries. Splendid assortment ORNAMENTAL and SHADE TREES, ORNAMENTAL SHRUBS and HEDGE PLANTS.

EGGS fro B. P. ROCK and BROWN LEGHORN FOWLS at \$1.00 per 13. Also, a few pullets and cockerels of these breeds at \$1.00 each for immediate delivery. Write for catalogue to

J. B. WATKINS & BRO., MIDLOTHIAN, VA.

POORLY GALVANIZED FENCES.

As considerable money is now spent by the average farmer for fences, it would seem good judgment to thoroughly study the fence question before buying, with a view to securing the very best article made, and to know that it is heavily galvanized and weather proof.

The Brown Fence & Wire Company, of Cleveland, Ohio, whose advertisement appears in this journal, claim to make a heavy weight farm fence, using all No. 9 Coiled Spring Steel strand wires with No. 9 Stay wires and all wires containing an extra heavy coating of galvanizing.

We advise our readers sending for this company's free illustrated catalogue, also a sample of their fence, which they mail free. Their catalogue is interesting to fence buyers and complete with fence facts.

THE SAME RESULT.

A well-known Bishop of Tennessee was taking his customary stroll through the park the other morning. He happened to sit down on one of the benches there. Now the Bishop is a very great man, not only in the Methodist Church, but in embonpoint as well. His weight proved too much for the bench, which collapsed, spilling him on the ground. About this time a little girl, rolling a hoop along, saw the reverend gentleman prostrate and offered her assistance. "But, my little girl," said the Bishop, "do you think you could help such a heavy man to his feet?"

"Oh, yes," replied the little girl, "I've helped grandpa lots of times when he's been even drunker than you are."—M. B. Miller, in February Lippincott's.

A VAIN BOASTER.

A farmer in central New York State has in his employ a man named George, whose understanding is not very acute.

One day, as his employer came out to the field where he was working, George hailed him: "Say, Boss, who do you like best, Mr. Gorman or Mr. Carney?" naming two ministers whose churches are in the neighborhood.

"Well," said the farmer, "I couldn't say. I never heard Mr. Gorman preach."

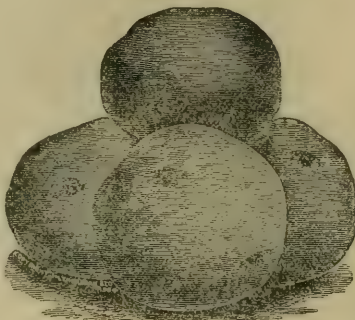
"I don't like that man Carney," said George; "he brags too much. I went to his church last Sunday and he didn't talk about anything but his father's mansions and brag about how much finer they were than any one else's."—H. S. Slawson, in February Lippincott's.

Two Highest Awards at St. Louis Exposition: Gold Medal for Seed and another Gold Medal for Vegetables.

Thorburn's Seeds

FOR OVER A HUNDRED YEARS HAVE BEEN UNIVER-
SALLY RECOGNIZED AS THE STANDARD of EXCEL-
LENCE.

Noroton Beauty POTATO.



This wonderful potato, introduced by us for the first time, last season, has borne out all claims we made for it. It has been universally praised and we expect a much greater demand for it this season. We offer it now at quite moderate prices. Send your orders in early.

OUR CATALOGUE the 103th successive annual edition—contains as heretofore, a more complete assortment of high class Seeds, etc., and fuller cultural directions than any other seed annual published. It is beautifully illustrated with the finest half tones, and contains 144 pages, and is in every respect and without exception the most complete, most reliable and the most beautiful of American Garden Annuals.

We mail it free to all interested in gardening and farming. Send for it.

J. M. Thorburn & Co.
36 Cortland St.,
NEW YORK.

Over one hundred years in business in New York City.

STARK FRUIT BOOK

44 pages 9x12 inches; 22 pages showing in natural colors 216 varieties of Fruit, with concise description and season of ripening of each; 64 half-tone views of Nurseries, Orchards, Packing Houses, etc. Send 50cts. for book (post-paid) and Rebate Ticket permitting return of book by mail within 60 days and we refund the 50¢. Or, mail us within 1 year, Rebate Ticket with \$12 order for nursery stock and we will credit \$1.00 in part payment on your order and you KEEP THE BOOK FREE. WE PAY THE FREIGHT. We Pay Cash weekly and want more home and traveling salesmen. OUTFIT FREE.—Stark Bro's, Louisiana, Mo., Atlantic, Iowa, Fayetteville, Ark.

DON'T BUY GASOLINE ENGINES

all one-cylinder engines; revolutionizing gas power. Costs Less to Buy and Less to Run. Quickly, easily started. No vibration. Can be mounted on any wagon at small cost—portable, stationary or traction. Mention this paper, SEND FOR CATALOGUE. THE TEMPLE PUMP CO., Mfrs. Meagher & 15th Sts., Chicago. THIS IS OUR FIFTY-SECOND YEAR.

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"I tell you, Mike," said one, as he squeezed the water from the hem of his trousers. "Overalls is the things to wear, fer no matter how wet they are, they are soon dry."

"Naw, Jawn, mackinaws is the byes," replied the other, as he looked down with satisfaction at his plaid suit of thick woollen. "Mackinaws is the only clothes, fer when you are wet and cold, they kape ye so warrum and dhry."—Caroline Lockhart, in February Lipincott's.

PROCEEDINGS.

Third Annual Convention of the National Nut Growers' Association.

The proceedings of the third annual convention of this association, which was held in St. Louis, Mo., October 1904, is a most interesting and valuable pamphlet of 150 pages.

It gives all of the twelve formal addresses, a full report of the various practical discussions, important statistical tables, reports of standing and special committees, cuts of executive officers, names of all officials, with roll of new members and carefully selected advertisements. Anyone interested in nut culture will find this volume a most valuable and fascinating work.

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Copies can be obtained of the Secretary at Poulan, Ga., for 25 cents, plus cost of postage, which is four cents per copy.

J. F. WILSON, Secretary,
Poulan, Ga.

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We acknowledge receipt of a set of very beautiful calendars from the International Harvester Co. of Chicago. This company directs us to say that parties wishing these beautiful calendars can secure one by calling on their local "Deering," "McCormick," "Osborne," "Plano," "Milwaukee," or "Champion" agent.

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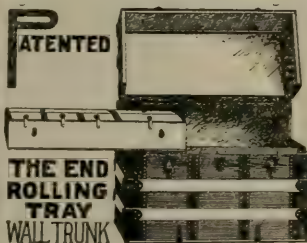
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"Oh, well," cried one of the boys as the crowd started down the road toward the swimming hole, "you always were a cut-up, anyway."

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WELL SPREAD.

Mike was employed in the powder works. One day, through some carelessness, an explosion occurred, and poor Mike was blown to pieces his remains were scattered far and near.

When the sad news had been broken to his wife, she said pathetically, between her sobs,

"That's Mike all over!"—Kate G. Wood, in February Lippincott's

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Agriculture is the nursing mother of the Arts.--XENOPHON.
Tillage and pasturage are the two breasts of the State.--SULLY.

67th Year.

Richmond, Va., March, 1906.

No. 3

Farm Management.

WORK FOR THE MONTH.

The month of February up to this writing (20th), has been on the whole a most favorable one, continuing the abnormal mildness of the whole winter though marked by one or two periods of severe frost, which in the absence of snow on the ground, cannot fail to have done some damage to the fall sown wheat and oats. We have reports from several different sections of this and adjoining States of winter killing of wheat and oats, caused by alternate spells of hard frost and hot sunny days. In the North and Northwest this alternate freezing and thawing has been ever more pronounced than in the South and this, without snow covering the wheat, cannot fail to have done injury. We are as yet, however, without any definite information as to the extent of the damage done. However, this may be, it will be the part of wisdom not to neglect every opportunity of getting all the land prepared for crops that can be done, so only that more acreage is not planted than can be well attended to during the growing season. One thing appears now to be clearly apparent that whatever crops the farmers of this country can produce will readily find a market at remunerative prices. One of the shrewdest men in this country who perhaps keeps closer in touch with the agricultural production of the country than any other man, Mr. J. J. Hill, the president of the Northern Pacific Railroad, said recently, that he was convinced that the time was fast approaching, when the farmers of this country would find themselves hard pressed to meet the calls of this country alone, for agricultural pro-

ducts, without regard to any surplus for export. With a population now fast approaching to the 100,000,000 mark, the consumptive capacity of the country will make heavy demands on the farmers and the day is near at hand when the average yields of all the staple crops will have to be largely increased if we are to feed ourselves at home. The day of the intensive farmer is at hand, and it behooves all to see that this point is appreciated and proper efforts made to measure up to the requirements of the case. Labor is getting scarcer and more difficult to handle everywhere and higher wages are being demanded, and this condition of things does not seem likely to abate. Commercial enterprise in all the great centres of industry is daily calling for more help and paying higher wages and getting it, and the farmer will have to meet this condition of affairs and to do it profitably, must fall back on the use of machinery and more intensive culture of his land, so as to make each acre produce more at less cost per bushel and per ton. There is a wide field for the exercise of scientific skill and careful management and organization on the part of the farmers, the majority of whom have, in the past, relied more upon brawn than brains to make their calling a profitable one. We know men who produce all the staple crops of the country, and who make beef, mutton, bacon, milk and butter, at from 25 to 50 per cent. less than their neighbors and fellow-farmers spend in making the like products. There should not be this great disparity in the cost of production. Of course, there will always be variation in cost of production, arising from the difference in the fertility of the land worked,

but this should not involve so great a difference as that named. Most of this difference arises from a want of close supervision of the labor employed, the use of defective implements and tools, want of organization and arrangement, and failure to utilize the lessons taught by scientific men. When farmers learn to exercise the same close supervision of the details of their work as manufacturers are bound to do, in order to meet competition, they will be astonished at the leaks they can stop. When they add to this close supervision, the help which scientific men have placed at their service in every branch of farming, then they will find that notwithstanding the increased cost of labor, the profit on production will be larger than ever before. The market prices of all agricultural products or nearly all of them are higher than they ever were before, and if only farmers will so organize themselves in local communities, as to purchase their supplies and sell their products in a methodical and business-like manner, with a full knowledge of the requirements of their land and of the markets they deal in, they can secure for themselves a fair proportion of this increased price. Local organization, like that initiated and so successfully carried out on the eastern shore of Virginia is bound to result in benefit to the farmers and injury to no one, except perhaps, the middlemen, who like the fifth wheel on the coach can well be dispensed with when they desire to monopolize too great a share of the proceeds.

The continuance of the mild weather has no doubt caused much of the work which we advised to be done in our February issue to be carried out, though there are doubtless, thousands of farmers throughout these Southern States who have not yet awakened from the rest to which they consigned themselves last fall. This is deeply to be regretted as such neglect of opportunities, practically puts them in the same position as the farmers in the North and Northwest, who, from the stress of weather, cannot make their working year in the land, one of more than 6 months, whilst here it ought to be at the least one of 10 months, and this year can easily be made one of that length. The additional 4 months can be made to return quite as large a profit as the 6 months, and thus enable, practically, two years' returns to be made in one. We have just had in a gentleman who thus avails himself of the opportunities which our Southern location gives him and he tells us, that on one-third of the land which most people would work on his farm, he makes crops, which the others would be glad to make on the whole farm. He says that

he makes it a rule to plow all his land under arable cultivation, three times every year, and gets three crops where the ordinary farmer gets one, and the more he works and cultivates his land the better the return he gets. He has practically demonstrated the truth of the doctrine, we have long been preaching, that tillage is manure. What our lands most need is putting in a better physical and mechanical condition rather than fertilizer. It is an absolute waste of fertilizer to put it into land plowed 3 or 4 inches deep, full of clods and wholly without humus in its texture. Our farmers in this State pay out every year, nearly \$4,000,000 for commercial fertilizer and in the four Southern Atlantic Coast States, probably nearly \$20,000,000, are paid out each year by farmers for this supposed absolute necessity for crop production. This is an immense tax to add to the cost of crop production and in our opinion one-half at least, of it ought to be saved, and could be with proper preparation of the land, and no less crops be produced. In fact, we believe much heavier crops could be produced on the same area of land and if this amount of money was still expended in fertilizers applied to the better worked land, an increase of 100% at least in the yield could be secured. If the best returns are to be secured from the use of fertilizers they must be used on land put into the finest physical and mechanical condition. The trucker who uses fertilizer with the most liberal hand prepares his land finely, fills it with vegetable matter and keeps it constantly producing crops. In no other way can he secure a return in crops adequate to reimburse himself for his heavy outlay. He uses no 2-8-2 goods, but finds out what ingredients his land and crops call for, buys these and mixes them himself or has them mixed for him by his fertilizer merchant, and applies them, not at the rate of 200 or 300 pounds to the acre, but in quantities up to 1,000 pounds to the acre, and he gets his returns. We are well aware that the grower of staple crops cannot expect profitably to use fertilizer at this costly rate in the production of his crops. There is not margin large enough on the sale value of these crops to permit of this outlay on fertilizer, but if fertilizer is used judiciously on well prepared land it may be made to pay on many staple crops, though rarely upon corn. To do this it must be used in conjunction with farmyard manure to supply the deficiency in phosphoric acid and potash, characteristic of this reliable adjunct to good farming and ought mainly to be used to secure heavy yields of forage crops like cowpeas and soy beans, which gather the nitrogen from the atmosphere but are them-

selves large consumers of phosphoric acid and potash. These crops should then be fed to stock and the resulting manure be applied to the production of the corn crop. Where stock sufficient is not kept to consume these crops, they should be plowed down in the fall after the ground has cooled down and thus return to the soil the phosphoric acid and potash they have taken from the land with the nitrogen they have gathered from the atmosphere. Following this course, the outlay in fertilizer can be quickly reduced, as only the cheapest forms have to be bought. Phosphoric acid in the form of South Carolina or Tennessee rock acid phosphate costs only about 4 or 5 cents per pound; and potash, in the form of muriate of potash, costs only about 5 cents per pound; whilst nitrogen, supplied in any commercial form, costs about 15 cents per pound. Recent experiments have conclusively shown that phosphoric acid can be supplied to the land in available form by the use of the untreated South Carolina and Tennessee rock at less cost than even 4 cents per pound, but it is essential, when thus using it, that the land should have an abundance of decaying vegetable matter in it when the acid produced by the decomposition of the vegetable matter in the soil, will supply the place taken by the sulphuric acid used in making the acid phosphate of commerce. If farmers will only take note of this and grow and plow down their pea, clover and soy bean crops, they can dispense with the purchase of acid phosphate and thus avoid the evil effects which have been found to follow the use of acid phosphate on some soils, arising from the souring of the soil by the excess of the sulphuric acid, depleting the soil of its alkaline properties. In conversation recently with a gentleman who has for many years used nothing but untreated South Carolina and Tennessee rock in a finely ground condition, he told us that he had had most wonderful results produced and that he never intended again to use acid phosphate. He had with this rock and lime, got his land into fine productive condition and could grow clover without any risk of failure, and when once clover can thus be produced, all other crops can be relied upon if only deep plowing and perfect preparation of the land before the crop is planted and good cultivation, afterwards, is practiced. This is the time when this system of bringing up the wasted lands of the South should be started and instead of worrying us to know how many pounds of some brand of fertilizer should be used on a piece of land to make a good crop, the farmer should set about the breaking of his lands for the production of these recuperative

crops and plant only in staple crops such part of his land as will with the farmyard manure he has on hand, produce a profitable crop. We are aware that many farmers will say that the adoption of this system will so curtail the area of the land that they can put into staple crops as to make it impossible to make a sufficient yield to meet their necessities. We doubt this much in most cases. Whilst the area will no doubt be much reduced, yet the increased production on the smaller area will be found so much greater, as to largely make good the difference in area planted in the first year, and in after years the area of crops can be so much increased as to rapidly supply the deficiency, and produce a surplus. If staple crop production is to be made profitable in the South without the expenditure of large sums of money, this is the only way in which it can be done and it is folly to go on producing crops and getting only the labor for the pains taken. Only to get bare laborers wages and often not that out of the production of a crop, can never result in rich farmers and productive land. With such yields as the present average yields of corn, cotton and tobacco in the Southern States, our farmers can never become well to do and independent. They need not remain in this condition if only they will adopt the advice we give them, and this advice can be followed, if only they determine that it shall be. It calls for no extravagant outlay, but only the exercise of self-denial to a limited extent, for a year or two. Let them cease to be extensive farmers and become intensive ones, until they can become extensive ones as well. Let them determine to make, at least, two crops on the land they cultivate each year, one for the barn and one for the land, and they will soon be able to become extensive farmers as well as intensive ones. Our climate permits this to be done and not to avail ourselves of the opportunity is to waste nature's bounty and punish ourselves.

The work of preparing the land and seeding the earliest crops should now be taken in hand with vigor. Before starting the work, lay out a comprehensive plan of the crops to be raised keeping always in mind the fact that preparing the land and seeding the crop is only part of the work of producing the crop. Cultivation and harvesting the crop is to follow; and to plant more area than can afterwards receive proper attention, is to waste much of the labor involved in preparing the land. By beginning with a comprehensive plan laid down, this loss may be avoided and each piece of land prepared can be made to do its

full work in bringing out a good result. Before the time comes around for planting the corn, cotton and tobacco crops have the earliest forage crops planted, and when these are out of the way keep the plows and harrows running, preparing the land for the corn, cotton, tobacco and later forage crops. In doing this work be cautious not to plow land when too wet, to break up in a fine mellow condition. Land plowed wet is land ruined for at least one season, and often for more than that. Heavy wet clods buried under a furrow will be largely found there at the end of the season, despite all work done with the cultivator harrow and roller and the plant food in the clod will not have become available for the support of the crops. The feeding rootlets of all crops are minute hair-like fibres on the roots which are much too tender to bore their way into clods. The roots may run amongst the clods, but these fine rootlets cannot do their work in supplying food to the crop in such conditions. They require to be surrounded with soil in the finest particles in which moisture and air is freely circulating and dissolving the plant food for the rootlets to appropriate. Cloddy land cannot hold this moisture in suspense for the use of the rootlets and only in so far as it is so held can the crop be benefitted as all plants take their food in a liquid form. Hence the importance of avoiding plowing land in a wet condition. Better lost a few days in plowing the land, than put a crop into land full of wet clods. Oats should be seeded as soon as the land can be got ready. It is too late now to sow Virginia grey winter oats. Sow the Burt Oat or the Rust Proof. The Burt Oat is proving itself a great acquisition for Southern farmers. We had excellent reports of it last year. It seems to meet the need, for a quickly maturing oat which is an absolute necessity for a spring sown oat in the South. The Rust Proof oat is also a good oat to sow now especially for cutting when the grain is in the dough state for forage. It makes excellent hay. When seeding oats do not be too sparing in the seed. Very much of the light yield of oats in the South is to be attributed to the fact that too little seed is sown. Oats do not tiller out like wheat even in a cold climate, and in the South, when sown in the spring, the warm weather sets in so soon after seeding that instead of tillering and spreading over the ground they usually send up almost at once the seed stalk and thus make but few heads to the plant. Sow 3 bushels to the acre and thus secure plenty of plants and a much better average yield. Put them in with a drill if possible, if not cover with the cultivator or a

disc harrow. An application of 300 or 400 lbs. to the acre of acid phosphate will greatly help the crop and will be well paid for in the cow pea or crimson clover crop which should follow this crop in July, and thus secure two crops from the same land during the year. After the oats have commenced to grow freely a top dressing of 100 lbs. of nitrate of soda will help them to make a better yield. We have known it to add 10 bushels to the acre where the land was already well supplied with phosphoric acid. Where the crop is merely wanted for a grazing or hay crop we should sow with the oats, seeding at the rate of $1\frac{1}{2}$ bushels to the acre a bushel of Hairy vetch per acre. This vetch was formerly thought only to be suitable for fall seeding, but we had last year a report from a party who had seeded this vetch in spring early when they made an excellent crop. Mixed with oats they should make either a good grazing crop or good hay.

Rape is a crop which may be seeded at once for a grazing crop for hogs and sheep. It is not fit to graze cattle on, as it is very apt to cause bloating and for dairy cows it is wholly unfit, as it taints the milk. For hogs and sheep it is excellent, giving plenty of growth and with a little corn fed daily will make fat hogs and mutton. It is a quick growing crop. A gentleman in here a few days ago, said that he got a growth of nearly 2 feet in six weeks after seeding. Sow about 4 lbs. of seed per acre broadcast or half this quantity in drills, 2 feet apart.

It is too late now to sow Canada peas and oats in the eastern part of this State or in the States south of Virginia, but the crop may yet be sown in the mountain sections of the west of the States. Sow about 2 bushels of peas per acre, either with the drill or broadcast, but if sown broadcast, they should be covered with a disc harrow so as to bury them deeply and then sow 1 bushel of oats broadcast and harrow in. This makes either a good grazing or hay crop.

Grass and clover seed should be sown as soon as possible. The fall is the best time for seeding these crops in the South, but if not then sown they should not be sown later than March. Spring sowing of these seeds is always more or less of a risk, as although a good stand may often be got it is very apt to be lost when the grain crop is cut off in June. The hot sun burns it out. If sown alone on well prepared, rich land a good and permanent

stand can often be secured. If to be sown on a grain crop harrow the grain crop freely with a sharp-pointed harrow and then sow the grass and clover and cover by again harrowing and then rolling. Sow grass seed and clover with a liberal hand. Not less than 2 bushels of grass seed per acre should be sown and 15 lbs. of clover seed per acre is little enough. We were discussing this question with a very excellent farmer a few days ago, and he said that he preferred to sow 25 lbs. of clover seed per acre, rather than 15 lbs. He rarely misses a catch of clover and says that his experience of many years has convinced him that very much of the clover seed sown never germinates, or if it does, the sprout is too weak and spindling to ever make a good plant. He attributes his success mainly to heavy seeding. Our own experience has always been favorable to heavy seeding of grass and clover. From no fault of the seedsman these small seeds are often very deficient in germinating and growing power. A wet time at the blooming period of the grasses and clovers will cause defective pollination and though the seed looks allright it will never make a perfect growth.

Wheat crops looking thin or weak in growth are much helped by being harrowed with a sharp-tooth harrow when the ground is in good working order. This working of the soil will start the plant into growth and if a top dressing of 100 lbs. of nitrate of soda be then applied, a good yield will often be made by a crop which looked like being a failure. Do not be afraid of pulling up the wheat. Whilst harrowing may make it look badly for a few days it will soon pick up again and it will be found that very little of the wheat is pulled up. Winter oats may be treated in the same way.

Meadow land intended to be mown for hay should have a good bush harrow run over it to level down all soil and manure lying on the surface and then have the trash raked off with the hay rake and loose stones should be gathered off to prevent damage to mowing machines. Then give the field a rolling with a heavy roller and it will be in nice shape for mowing and hay making.

Tobacco plant beds not already sown should be burnt and seeded at once. Make the surface fine and rich with a nitrogenous fertilizer and seed and roll. Recent experiments made, tend to show that there is as much advantage to be gained from careful selection of tobacco seed as from careful selection of corn for

seed. It was found to be an almost invariable rule that the best plants came from the finest and heaviest seed. This points to the importance of tobacco planters growing their own seed from carefully selected plants, removed from risk of cross pollination with other and poorer plants and then the careful harvesting of the seed and its selection by means of a little apparatus which has been devised for sorting out the light seeds in the sample. Have the plant beds covered with plant bed muslin as soon as seeded so as to protect the plants from insect enemies.

In the cotton planting sections, the work of preparing the land for the crop should be pushed on as fast as the weather will permit. The importance of early seeding of the cotton crop in order to avoid danger from the boll weevil, is strongly emphasized by the experts who have been investigating this subject.

COWPEAS AS IMPROVERS OF LAND.

Editor Southern Planter:

I have been a reader of your valuable journal, for a good many years, and wish to ask your opinion as to why cowpeas seem to improve some lands so much more than others. We use the pea here both as an improver and a hay crop, and know that it is a paying crop for both purposes; but it does not increase the yield of the following crop to any great extent. It is easier to get a crop of clover after peas, and the yield of wheat is improved, both in quantity and quality, but the increased yield here is nothing to compare with what it causes in the Mississippi Delta lands. There lands that have been planted in cotton for years and years in succession and are apparently run down will almost double the yield of cotton for two or three years after just one crop of peas. The difference really seems almost incredible. I know that our lands are not to be compared with the Delta lands for fertility, but I do not see why it should not be improved in proportion, as much as those lands. If the pea here would produce the same results in proportion, that it does there, we would have a veritable garden spot, for our lands are adapted to a variety of crops, whilst theirs are suited only to cotton. Would a deficiency of lime in the soil tend to lessen the value of the pea as an improver? Or does the failure of the pea to materially improve our soil indicate a need of lime? I have carefully examined the roots, both here and in the Delta and see no difference as far as the

modules are concerned, either in numbers or size. Often there is nothing but a hull in the Delta after the crop reaches maturity. This does not seem so often the case here, but as far as the growth of the pea crop is concerned I have seen just as heavy a crop here as I ever saw there. It may be that the land there being all alluvial, has a sufficient quantity of vegetable matter (or humus), and needs only the nitrogen gathered by the pea to make it bring a full crop. Thanking you for your opinion on this subject.

A. P. JOHNSON.

Chas. City Co., Va.

The value of the cowpea as an improver of land, depends largely on the abundance or absence of the mineral fertilizers, phosphoric acid and potash in the land. The cowpea itself is a large consumer of these minerals and it is possible to grow cowpeas on land in successive years, so long as to absolutely impoverish the land so much as to make it impossible to grow any crop successfully. We had recently an instance of this kind where a farmer reported that relying on our assurance that cowpeas would improve land, he had planted them continuously for several years without giving them any help in the way of fertilizer and now found that his land would produce nothing. The cowpeas had so completely exhausted the phosphoric acid and potash that no crops could flourish. This shows how important it is that farmers should understand what is needed for successful crop feeding. No crops can flourish on any land unless there is a sufficiency of the three principal elements of plant food, nitrogen, phosphoric acid and potash, in the soil and these three elements must bear a due proportion towards each other and to the requirements of the crop grown for these different elements. No excess of one element will make good the deficiency of either of the others. The yield will be in proportion to the sufficiency of the one element to meet the requirements of that crop. The dominant factor for instance, in the production of corn is phosphoric acid. The dominant factor in the production of Irish potatoes is potash; the dominant factor in the production of forage crops is nitrogen. Now cowpeas, like all the legumes, is valuable as an improver of land as a gatherer of nitrogen, the most costly of all the fertilizers and as the means of supplying humus to the soil. But for it to exercise this power it must have at its command an abundance of the mineral fertilizers, phosphoric acid and potash. Given these, it will improve quickly any land on which it is grown. In their absence it will eventu-

ally fail to grow itself and leave the last state of the land worse than the first. Now, it is a well ascertained and recognized fact, that nearly all our lands, in Virginia, are lacking in phosphoric acid for the best and most profitable production of crops. All the lands east of the Blue Ridge have sufficient potash in them naturally for the production of all but the most greedy potash consuming crops, like Irish potatoes and tobacco, but much of this potash requires to be made available by the use of lime on the land. This, we take to be the reason why cowpeas do not make such a proportionate increase in the yield of crops here, as it does on the Mississippi Delta lands. Those lands by the constant washing down of the detritus from the rich western lands and mountains are kept filled with abundant supplies of phosphoric acid and potash, whilst ours have no such sources of these minerals to help them. They must have the phosphoric acid supplied either in the shape of acid phosphate or the crude South Carolina and Tennessee rock, finely ground. We believe that the raw or crude rock used in conjunction with the cowpeas would give quite as good returns as the acid phosphate and at very much less cost. In conjunction with this phosphate, lime, should be applied, say at the rate of 25 bushels to the acre, every three or four years, to make available a sufficiency of the potash naturally existing in the soil. Fertilized in this way, which means really at comparatively small cost for probably not more than 300 or 400 lbs. of acid phosphate or 500 or 600 lbs. of the raw rock to the acre, costing not more than 4 cents per pound, for the actual phosphoric acid available in the phosphate would be necessary and growing peas as a secondary crop each year our lands would be rapidly improved and probably proportionately as much as the Delta lands. Cotton being largely a foliage crop, nitrogen is a dominant factor in its production and hence on the Delta lands, even a small addition of a nitrogen gathering crop will cause luxuriant growth and prolific flowering and bolling.—Ed.

THE PURCHASE OF FERTILIZERS.

Editor Southern Planter:

In business enterprises, success is largely dependent on the methods used in purchasing supplies; and in farming, the investment of foresight and common sense in buying plant food will return to the farmer a very high rate of interest.

The secret of making satisfactory purchases is based upon knowing exactly what one wants, and

then, where to make the money obtain the largest amount of material.

Too often the farmer is misled by the prices of certain products which appear to him to be very low. when in reality the price is high. On the other hand, one may go to the other extreme and make purchases of material at high prices and on examination it will be found that the products are not worth the price paid for them. The purchase of fertilizers requires intelligent action, if the farmer does not care to pay for a costly experience as part of his education.

In conversation recently with a farmer, he called my attention to a certain fertilizer that he had used on one of his crops. He was pleased that he had purchased what he considered a high grade material. The cost per ton was \$30 and its composition 8-3-3. A moments calculation is all that is necessary to show that the actual value of the product was less than \$20 per ton. The extra \$10 was in the way of the dealer's profit and the cost of mixing, or in other words the price was 50% above the value of the fertilizer.

One of the convenient methods of reaching the value of a fertilizer is by using the *unit*. A unit is one per cent. per ton. If a fertilizer contains 8% of phosphoric acid, 3% of nitrogen, and 3% of potash, then in terms of the unit, the fertilizer contains 8 units of phosphoric acid, 3 units of ammonia and 3 units of potash.

The cost of the various forms of plant food is estimated each year by the Experiment stations and these tables should be of interest to every farmer.

Acid phosphate is largely used as a source of phosphoric acid. The farmer purchases this material in different grades and it is a matter of interest to know the cost of it to him.

The latest price list for the coming year offers acid phosphate as follows:

10 per cent. \$9.75 per ton f. o. b. at the nearest city; 13 per cent. at \$11.50 per ton; 14 per cent. at \$12.00 per ton; 16 per cent. at \$13.00 per ton.

The cost per unit would be as follows:

	Cost per unit of Phosphoric Acid.
10 per cent. acid phosphate	97.5 cts.
13 " " " "	88.5 "
14 " " " "	85.7 "
16 " " " "	81.3 "

The freight from the city to my station is \$1.50 per ton and when this amount is included in the cost of the fertilizer, the cost per unit would be as follows:

Grade of Acid Phosphate.	Cost per unit for freight	Cost per unit of Phosphoric Acid delivered at station.
10 per cent.	15 cts.	112.5 cts.
13 " "	11.5 "	100.0 "
14 " "	10.7 "	96.4 "
16 " "	9.4 "	90.6 "

The cost of freight will vary from 15 to 9.4 cents per unit and the cost of the phosphate will vary from 112.5 cents to 90.6 cents, for each unit of phosphoric acid. The high grade acid phosphate is therefore the cheapest for the farmer to purchase.

In the purchase of potash salts we find the same result. The high grade sulphate of potash and muriate of potash are the cheapest sources of potash. The same is true for those products that are used for supplying nitrogen.

A good working knowledge of this subject enables the purchaser to buy fertilizers at the lowest cost, to get the lowest freight rate, and the saving in labor in the hauling of valueless material is considerable when the distance from the station is one or more miles.

Nottoway Co., Va.

J. B. WEEMS.

PAY ATTENTION TO THE HORSE COLLAR.

Editor Southern Planter:

How many farmers give more than a passing thought to their horse collars at the opening of the spring season? The main idea seems to be to "get started, and fix things up afterwards." It is very well to put the work through with a rush, but a little attention to the work collars will help wonderfully to gain this end.

It is seldom, if ever, that the neck and shoulders of any two horses are exactly the same in size and form, and the collar that fits a horse early in the spring when he is fat, hangs loosely about harvest time.

Many farmers make the mistake of interchanging horse collars, regardless of the fact that it is the best way to produce shoulder galls. Every horse should have his own collar, fitted up closely on the sides, top and bottom. Loosely fitting collars or carelessly adjusted hames work great mischief with horses' shoulders.

Now it is about time for farmers to begin active spring work. It would be well for them to give their

horse collars personal attention, instead of leaving this work entirely to the hired help. As collars are made over a last while in a thoroughly wet condition, why would it not be well to fit them to the horses' necks in the same way? This can be done by selecting a collar nearest the size required and allowing it to soak in water over night. In the morning it is put on and drawn up closely with the hame strap. With moderate working for a day or two the collar becomes "set," fitting the neck and shoulders perfectly. This should be done not only to the new collars, but every spring the old ones should be treated the same way, for the collars that fitted at the end of the fall season, when the horses were thin, will be too tight in the spring. Many farmers soak and fit their horse collars in this fashion two or three times throughout the season, keeping them fitted to the horses as they become worked down in flesh, with the result that their shoulders are always in good condition.

The proper adjustment of the hames, so as to distribute the draft, is of great importance, and in each case must be fixed according to the conformation of the horse. When properly arranged, there will be no weaving back and forth of the tops of the hames as the horse walks. This is an indication that the draft is too near the shoulder points, and with every motion the collar is kept twisting until the shoulders, or the top of the neck, or both, are injured.

Badly adjusted collars are often the cause of balky horses. Without doubt, they suffer unmerited ill-treatment, and much of their abuse is traceable directly to this trouble. The horse is man's best friend, and nothing short of a perfectly fitting collar, such as he justly deserves should satisfy his owner.

L. H. COOCH.

GRASS FARMING.

Can any grass be found that will become permanent in the Southern States and so fill the place of the old grass lands of Great Britain and Ireland.

Editor Southern Planter:

In my young days I was quite familiar with the old sods in the South of England. No one could tell how they originated, they were so old that the origin was lost. Runnymede on the River Thames, about 40 miles above London, was no doubt a good turf when King John and his Barons assembled there and Magna Charta was agreed to and signed. The last

time I was on it, it was a splendid meadow. Pevensey level adjoining the southern coast, a very extensive and fine body of old sod was no doubt in grass when William the Conqueror in A. D. 1066 landed his Norman army there and afterwards defeated Harold, the Saxon King, in the great battle of Hastings, some 10 miles inland. I have known some of the best and some of the worst of these old sods, the very best will fatten a big steer to every acre in 180 days of summer, and parts of Romney Marsh, another large and fine body of grass also on the southern coast will fatten 10 large sheep per acre in the same time. The south downs of the county of Sussex (on which the famous Southdown sheep originated), produced the least and poorest grass that I remember. These were used entirely for stock ewes, the land is very thin, with a subsoil of white chalk. There is a great difference in the quality of the grass from different soils. It has been found very difficult to get second and third class lands to take to grass in late years. Inoculation with small pieces of turf from good old pastures is the best way known, but, expensive, costing \$12 to \$15 per acre. Unless the ground is very rich the sowing of a mixture of grass seeds usually fails after a few years. The system of inoculation could not be practiced here, as there is no old turf to start with and the intense sun would be against it. It is over 30 years since I left England and during all these years I have been looking for some grass that would become permanent and have found nothing satisfactory except Bermuda grass. It was in East Tennessee that I was studying the matter but there I never saw any systematic endeavor to get land well set in Bermuda on a large scale, it was generally found in small patches growing, almost uncared for; on lawns or house lots, all of which showed vigorous growth, yearly extension of the patches, and improvement generally, with abundance of grazing. If Bermuda grass will grow so satisfactorily in small lots why not over extensive boundaries? If I had been a farmer in this country as I was in England, I feel sure a fair proportion of my land would have been in permanent Bermuda, for I have felt sure of its great value for over 20 years.

Bermuda is usually started from small pieces of the root stocks, which grow readily and for small places it is the most desirable way. These sprigs are planted about two feet apart, they soon send out runners, like strawberries, and in a year or so the whole ground becomes matted with grass. Where the roots can be handily gotten, this way might do for large fields, but when roots are not easily procurable

the Bermuda grass seed can be sown and a good stand should be had if the land is properly followed and prepared. I would plow the land early in the spring and cultivate it several times, getting a fine bed for the seed, and as soon as the ground was well warmed sow 5 lbs. per acre, mixed with 200 lbs. of acid phosphate and 200 lbs. of cotton seed meal per acre, if the land was poor, allow the grass to grow for some time without grazing, and if weeds were troublesome, run the mower over the field to check their growth and give sunshine to the young grass. The Bermuda will run out all weeds when it gets to its full growth; weeds cannot exist with this grass. There is a strong prejudice against Bermuda grass because it cannot be easily eradicated. This is one of its main advantages and who would want to do away with a permanent grass field, which would yield more net income than any crop of corn, wheat, oats, or timothy, which are the common crops grown and all being soil robbers.

Horses, cattle and sheep are exceedingly fond of the grass, hogs should have rings in their noses when grazing on it or they will eat the roots as well as the grass, land improves under its growth, and it should play its part in the South as blue grass does in parts of the country adapted to its requirements. I always feel sorry for the man who cultivates hills, they were never meant for cultivation, but to grow grass or timber, and for the persistence with which men will dally with bottom lands that overflow late in spring and often in summer. Such hills and bottoms if in permanent grass for grazing would bring good returns for capital invested, which they seldom do now; the anxiety over the bottoms from floods and the worry over the cultivation of the hills would be lessened, and an improved living would be brought about by the change to grass.

FOSTER CLARKE.

Princeton, W. Va., Feb. 12, 1906.

We append an extract from an article by Prof Soule on Bermuda grass, which appeared in The Breeder's Gazette some time ago. This bears out our correspondent's estimate of the value of the grass to Southern farmers. Much of its great value lies in the fact that the hot sun never hurts it and the winter does not kill the roots, though it browns the tops. We have thousands of acres in the South, that if in Bermuda grass would make handsome profits in feeding stock each year, that now make no return whatever but taxes. Prof. Soule says:

In composition the grass does not quite equal Kentucky blue grass, but as only a comparatively few analyses are available on the one hand while there are very many on the other it is not fair or proper to draw conclusions concerning this point. The following tables show the relative composition of the two grasses in both the cured and green state. The analyses are by Jenkins and Wintor:

HAY.	Fresh or air-dry material.			Fat.
	Protein.	Fiber.	Nitrogen-free extract.	
Kentucky blue, four analyses, cut with seed in milk,	6.50	24.47	34.27	3.60
Bermuda, four analyses	7.54	21.70	47.58	2.06
<i>Water-free substance.</i>				
Kentucky blue	8.3	32.3	45.4	4.8
Bermuda	11.4	24.4	53.8	2.3
<i>Green.</i>				
<i>Fresh or air-dry material.</i>				
Kentucky blue, all analyses, 18	4.12	9.14	17.59	1.30
Bermuda, one analysis	2.15	5.83	17.31	.95
<i>Water-free substance.</i>				
Kentucky blue	11.8	26.2	50.3	3.7
Bermuda	7.6	20.8	61.1	3.4

As to the amount of grazing it will furnish it is well known that an acre of well-established Bermuda sod will frequently carry one animal through an entire season and that in sections of the country where it will furnish grazing from eight to ten months of the year an acre will carry from six to ten sheep. Yet it is reputed that from two to three acres of the best Kentucky blue-grass, not native to that State of necessity, are required to carry an animal through a grazing period of equal length and that while Bermuda grass would be uninjured by close grazing of sheep Kentucky blue-grass would be practically destroyed. These considerations are of the most serious import to the Southern farmer and instead of fighting the grass he would better make friends with it, cultivate its acquaintance and come to know its virtues thoroughly so he may adapt it to his needs and reap the golden harvest which it is prepared to make for him under judicious management. The Southern farmer who is fighting Bermuda grass is simply quarreling with his bread and butter.

Bermuda grass will grow on almost any kind of soil, though it gives its best results on well-prepared land of moderate fertility. It will grow with satisfaction on the heaviest red clay lands of the South, on uplands and lowlands, hill tops or slopes, provided the elevation is not too great, and on rich valley or bottom lands, and on uplands on which tame grasses cannot be cultivated. The rich moist valley lands or the low bottom lands of the rivers and creeks can be utilized for the production of corn, forage or

toddler tops or some of the tame grasses to better advantage than Bermuda, unless they are subject to serious washing. On sloping rolling upland soils where washing is very bad, owing to the torrential nature of the rainfall in the South, if the grass is given a proper chance it will form a dense sod and eventually stop erosion. In fact Bermuda grass is now being employed quite extensively in sections where Lespedeza and other wild clovers and grasses have taken possession of a part of the land to stop up the gullies mentioned. It is also being used in like manner in tame pastures and in every instance that has come to the attention of the writer the owner is delighted with the success of the experiment.

PRODUCTIVENESS OF SOY BEANS.

Mr. W. H. Wil-on, of Norfolk Co., Va., writes us that the son of a neighbor of his, planted in 1904 nine soy beans. From these he saved all the seed which he planted in 1905. From this second planting he saved eleven pecks of fine seed. This should convince farmers of the productiveness of this crop when properly planted and cared for. As a producer of a fine quality of hay cut when in full foliage, they are excellent.

LEGISLATION FOR FARMERS.

Editor Southern Planter:

I have heard some good farmers of the State express themselves as being dissatisfied with the present state of some things in which they are vitally interested. Efforts have been made in the past, to improve certain conditions for the farmers, but politicians have sometimes gotten in the "last word" on the laws and largely thwarted the object which certain laws were intended to accomplish for the farmers. As an instance, I refer to the law making the State Commissioner of Agriculture elective by the people, thereby forcing the Commissioner of Agriculture into politics. The farmers of the State who want to see this law changed, should not fail to write their representatives in the present legislature at once, about this matter. I mean no personal reflection, but I do not think the farmers of Virginia want a law which forces one of their public servants into politics. The State Department of Agriculture should be made as strong as possible.

The State Board of Agriculture should have full power to prosecute their work in the interest of Virginia agriculture. An effective pure food law is needed. If an Immigration Department is to be tacked onto the Department of Agriculture, it should be so arranged that it will not injure the work with fertilizers, pure food analyses, mineral water and soil analyses. In other words, we want to see the State Department of Agriculture made as strong as possible, not politically, but scientifically and practically. While there has been an improvement in regard to the State Department of Agriculture co-operating with the State Experiment Station, still, there is much more room for closer co-operation to prevent duplication of work. There is room for both in the State.

Another matter of vital importance to Virginia farmers is that when appropriations are made for buildings or other features of the State Agricultural work it should be stated specifically what each item of money is for. Otherwise, if the appropriations are passed in bulk without specialization, as has sometimes been done, the real agricultural features may "come out at the little end of the horn."

It is not good policy for the farmers to take the work of the present legislature and then criticise the work after it adjourns. Vote with the postage stamp now. One hundred letters sent to a representative in regard to a certain matter from the farmers, "the bone and sinew of the country," will certainly have weight. The farmers of Virginia can make their influence felt and no Statesman can afford to ignore their wishes. I believe the present legislature will hear from the farmers.

R. H. PRICE.

Montgomery Co., Va.

We strongly urge our Virginia readers to note the above and act on the advice given.—Ed.

Graham & Renfrew, of Bedford Park, Ontario, Canada, have sold to Charles Clapp, Berryville, Va., the noted young hackney stallion, Hiawatha. He was a prize winner at the New York Horse Show last fall, when he was purchased by Graham & Renfrew from Haley & Son for a stiff price, just as he was about to be shipped back to the old country. Hiawatha was a winner in England last season when pitted against real high-class performers. \$7,500 is the price reported to have been paid by Mr. Clapp for Hiawatha.

Trucking, Garden and Orchard.

WORK FOR THE MONTH.

The mildness of the winter and the continuance of the fine weather will make this month a very busy one for the trucker and gardener. Crops we hear are being put into the ground as fast as it can be got ready and there is every indication that with a continuance of the spring-like weather we are now having, products will be on the market ten days or a fortnight earlier than is usually the case. We would urge that the whole crop of any one variety should not be planted at once thus early in the year. We have repeatedly known such an early opening of spring as we are now having, to be followed by severe weather in March and April, and for the early crops to be cut by the late frosts. In such an event happening if all the crop has been planted early, the loss is serious, as it is then too late to plant again in time for the crop to come on the market in its proper rotation with those of the other Atlantic Coast States engaged in the same business, and if once this rotation is thrown out of gear, disastrous loss cannot fail to follow. The salvation of the great trucking business of the Atlantic Coast States lies in a successional supplying of the Northern markets. First the crops of Cuba then those of Florida, then those of South Carolina, then North Carolina, then Virginia, followed by Maryland, Delaware and New Jersey. Any disarrangement of this order by a freeze in any of these States, spells disaster. If our earliest planted crops are cut off by a late frost, which does not also cut off those of States to the north of us, though it may be early enough to plant another crop here and get good growth, yet the price will be so cut by the glutting of the markets with the products of the other competing States, as to make the raising of the second planted crop an unprofitable one. Hence our caution not to plant the whole crop at once, so early in the season. Put in part of the crop and then wait a week or ten days, and if a frost should come and cut off the earliest planted, that part planted later may be saved and come in in time to save the situation.

Continue the work of preparing the land and fertilizing it as advised in our last issue. Always bear in mind that vegetable crops of all kinds, to be good, must be grown quickly and this can only be done on finely prepared, rich land. Do not skimp the manure

and fertilizer. In our last issue will be found full instructions for mixing the proper fertilizers for the various crops, and to this we refer our readers. As hundreds of new subscribers have come on our list since that issue was sent out, it may be well for the benefit of these parties that we should repeat the formula for at least one or two of the earliest crops to be planted.

For Irish potatoes take:

Nitrate of Soda.....	300 lbs.
Cotton Seed Meal.....	600 lbs.
Acid Phosphate.....	800 lbs.
Nitrate of Potash.....	300 lbs.

2,000 lbs.

Apply at the rate of from 500 to 1,000 lbs. to the acre, mixing well with the soil in the row, before planting the sets.

For cabbage, cucumbers, melons and cantaloupes, take:

Nitrate of Soda.....	300 lbs.
Cotton Seed Meal.....	700 lbs.
Acid Phosphate.....	750 lbs.
Muriate of Potash.....	250 lbs.

2,000 lbs.

Apply at the rate of 500 lbs to the acre with compost, if available.

Continue the work of planting the early Irish potato crop. Do not cut the sets into too small pieces. Let each piece have at least, 3 good eyes, and a good proportion of tuber with these. The early planted crop has harder conditions to battle with than the late planted crop, and the sets are not such vigorous growers as the later sorts and they should therefore have more chances given. Throw the rows well up above the level of the land so that the soil may have the advantage of being warmed up by the sun and the sets be kept out of the water in the event of heavy rains falling. Plant varieties known to do well in the section for the main crop, but test other and newer varieties in small plots for planting another year.

The English pea crop should, if not already

planted which is better, be at once got into the ground. These peas can stand cold weather and if put deep into the ground will take no harm, should this come. Cover at least 4 or 5 inches deep and tread or roll them firmly into the ground before covering. Land which grew Irish or sweet potatoes last year, or cow peas, is the best for this crop. Such land needs very little fertilizer or manure to make a good yield. Too much fertilizer is apt to cause the crop to make vines, rather than peas.

Fall planted cabbages should be cultivated frequently, to encourage growth, and plants grown on during the winter, or raised this spring, should be set out as soon as large enough. After the plants have started to grow freely, a top dressing of nitrate of soda applied down each side of the rows will greatly help them. In an experiment made in North Carolina, in the use of nitrate of soda on the cabbage crop, it was found that where no nitrate of soda was used there was a yield of but 910 prime heads of cabbage per acre. When 300 lbs. of the nitrate was applied, per acre, in two equal applications, the number of prime heads obtained was 3,260, per acre. When the same amount was applied in three equal dressings, the yield of prime heads was 5,390, per acre. On the land where 400 lbs. of nitrate was used per acre in two equal applications, the yield was 4,160 prime heads, per acre, and when the same quantity was applied in three equal dressings, 7,580 prime heads, per acre, were cut.

Strawberries should be cultivated as soon as the ground is dry enough, and a top dressing of 100 lbs. of nitrate of soda, 200 lbs. of muriate of potash and 400 lbs. of acid phosphate, per acre, may be applied down each side of rows and be worked in with advantage. Mulch the land with pine tags or cut straw or marsh hay free from weed seeds to conserve the moisture and keep the berries clean. New plantings of strawberries should be made at once, to come into bearing next year.

The planting out of new orchards and the pruning and spraying of established ones, should receive prompt attention. In this issue will be found full instructions for spraying for all diseases and insect pests. Pruning, both of orchards, vineyards and small fruit bushes, should be completed at once before the sap begins to run. In planting new orchards avoid low lying ground or Southern exposures. In these locations especially in the South the trees are

apt to be forced into early blooming and then later, the whole crop to be lost by a sharp frost. A subscriber told us a short time since that he had unfortunately made this mistake in setting out an orchard a few years ago, thinking to get early fruit and he had had every crop killed whilst another orchard planted on a northern exposure was fruiting finely.

Make up the hot bed at once for striking sweet potato plants and for raising early cantaloupe, tomato, pepper and egg plants. Throw out a foot of soil, the size of bed required and fill to a depth of 2 feet, with fresh horse litter and strawy manure, treading the same solid. Let lay for a week and then fork over and tread solid again, and after it has settled cover with three or four inches of good woods mould or soil, and then cover with sash, raised by a frame, a foot above the bed. When the heat has become steady and not too high, the sets may be bedded and seeds sown in boxes laid in the bed.

EARLY IRISH POTATOES.

Editor Southern Planter:

The growing of the early potatoes is not a local industry, since different sections distinguish between the crops grown for the early market, and that grown for winter storage. The term is necessarily relative, since what would be very early in one potato growing section would be extremely late in another place. There are certain points of equal importance to the success of the crop, irrespective of the locality in which it is produced. As the planting season approaches, it is well to consider a few of the factors influencing the character of the crop.

The potato is particularly adapted to clay-loam soils. In the North, however, warmth is often the chief demand of the plant at the time it is necessarily planted. This requirement is usually met by planting on light sandy loam soils. The special plant food requirements of the crop resulting from this forced change in the natural soil adaptations of the potato, are frequently overlooked. Men who remember the persistence of their grandfathers in reserving wood ashes for use on their lightest sandy lands, and the great success of such practice, forget the inevitable lesson. The potato is a heavy potash feeder. These early potato lands are particularly deficient in this essential. These are facts which can hardly be too much insisted on. These soils are, of course,

often low in their supply of nitrogen, but the occasional turning under of clover sod, or pea-vine stubble, will easily keep this element of fertility up to the requirements of productiveness. The deficiency in potash, on the other hand, must be entirely supplied by applications of potash fertilizers equal to the demand of the crop.

The heavy clay loams on which the early crop of the South is mostly grown, where climatic conditions render the potato independent of the matter of warmth of soil, also have special fertilizer requirements, as related to the potato. These lands are naturally cold. Were it not for the dependence of the crop on the moisture they unfailingly supply, it is probable that this coldness would force the grower to the selection of lighter soils, notwithstanding the warmer climate. These conditions result in slow action within the soil. Organic fertilizers change and become available to the crop too slowly for best results. They should, therefore, be rejected as sources of nitrogen. Their place should be supplied by the most quickly available forms, nitrate of soda and sulphate of ammonia offering best choice for the purpose.

The quick availability of these nitrogenous fertilizers, however, suggests an important precaution. They should never be applied all at one time. The total application should be divided into two or three parts; any of these should be applied at the time of planting, the others at the first or second cultivation.

The heavy lands on which the Southern crop is chiefly grown have a special relation to the form of potash to be used. While on the light soils, the muriate of potash may be satisfactorily used, a better quality of tuber follows the use of the sulphate of potash on the heavier lands in question. Their natural tendency is toward the production of a somewhat "soggy" potato. This tendency is largely counteracted by the use of potash in the form of the sulphate.

What has been written relative to use of available nitrogenous fertilizers on heavy potato lands applies with equal force to the selection of the form of phosphoric acid. The slowness of the soil and the shortness of the potato season, both indicate the use of only soluble phosphates.

The shortness of the growing season, and the rapidity with which the crop may be forced forward to the harvest, are equally important with all other details of early potato growing, as in their relations to fertilizing the crop. One very important means of hastening the maturity of the potato is often overlooked. Simply exposing the seed to sunlight, in a

moderately warm place, is equivalent to the same time after planting, subjected to proper growing conditions. By this simple treatment the seed potatoes not only sprout, but the sprouts are green, tough and leaved. They are not easily injured in cutting and planting. They start growing immediately, and easily distance potatoes planted from seed handled in the usual way.

Even experienced growers are often seriously in error in their methods of seed cutting. The number of eyes, so commonly adopted as the basis for cutting, is utterly unreliable, and often seriously detrimental. The *size of the seed piece* is the proper basis for cutting. An average size of one and a quarter ounces in weight for the pieces gives the best results. Such pieces will average two or three eyes each. Pieces which include a large part of the eye end of the potato will often have more eyes than can advantageously grow. A part of these should be destroyed with the knife, as the seed is cut.

A few precautions at the time of harvesting often materially increases the profits from the crop. In hot weather, direct sunshine should not be allowed to touch the harvested potatoes for more than a few minutes. This and equal care against dampness from rain or dew, at time of barreling, are the surest protection against early rotting. It is also important to bear in mind that potatoes grown with liberal potash fertilizing will keep better in hot weather than those produced without this advantage.

H. E. STOCKBRIDGE.

PATENT WASHES FOR USE AGAINST THE SAN JOSE SCALE.

We have had numerous inquiries in regard to the use of Kilscale (Kil-o-scale), Consol (Con-sol), and other patent washes of like nature, and take this method of replying to the enquiries.

On April 22, 1904, an experiment was planned in which caustic soda, Kilscale and Consol were used in comparison with the lime-sulphur wash against the San Jose scale. This was very late in the season, just at the time when it should have been most effective, yet we found that the lye washes used strong enough to kill the insects also killed the trees. Kilscale used at a strength of 1 part to 24 parts water, did not kill an appreciable number of insects, they being as plentiful on treated as on untreated trees when the examinations were made in October. Consol of same strength was used with the same results. These materials used, however, at a strength of 1

part to 4 parts water gave very good results in destroying this insect. Either Consol or Kilscale, used strong enough to compare favorably with the lime-sulphur in its killing effect on the San Jose scale, will cost from ten to fifteen times as much as the lime-sulphur, and cannot be recommended except in a very small way.

We have noticed a number of recommendations from people who have used these washes, but in almost every case the examination was made as early as June or July, which is too early to determine the full effect of the use of these washes. The results can be determined much more certainly late in the season. This insect multiplies very rapidly, and if a small per cent. are left alive, they will breed so as to infest the trees quite seriously before the season is over.

J. L. PHILLIPS,
Entomologist.

Exp. Station.
Blacksburg, Va.

PEACHES FOR PROFIT.

Editor Southern Planter:

To say that the peach is fully appreciated in the South is perhaps a mild way of putting it. It is recognized as the best of all of our fruits, both with regard to its luscious flavor and also its commercial value. I shall give in brief a few of the steps necessary for the planting, cultivation and care of peach orchards, which came to me through practical experience at Cooch's Bridge, Delaware, and if there are any things written below that are questioned, I trust they will not go unchallenged.

The preparation of the soil seems to me one of the crucial points in the success or failure of the orchard. Most soils in the South are lacking in nitrogen more than in any of the other elements of fertility, and as this costs in the form of commercial fertilizers, something like 15 or 16 cents per pound, it would seem wise to supply it by means of some of the leguminous crops such as scarlet clover or cowpeas. I adopted this plan on about half of my orchard and it was not long before I wished I had treated the whole field in a similar manner. The part mentioned was in corn in 1896. At the last cultivation I went through every fifth row both ways, and sowed scarlet clover. The following June I plowed this under and drilled in cowpeas at the rate of one bushel to the acre. The vines were allowed to fall down and acted as a mulch and cover crop that fall and winter, keeping the ground in such a

fine mechanical condition that I was able to plow it early in the spring of 1898. The whole field was plowed and then put in the finest possible condition with the harrow. The services of a good plowman were secured for marking out the field, and to facilitate cultivation and spraying I ran the rows twenty feet apart both ways. I should not do otherwise should I set out one thousand acres of peach trees. The running out of the rows did not take so long as might be supposed, and when it came to setting the trees, the work was but a slight task, requiring only a little time to scoop out some dirt at the crossings. The rows were kept an even twenty feet apart by putting up tall sighting poles. These had twenty foot notches on them and as soon as the plow would come up to one it was simply set up twenty feet to one side, ready for the next row coming back. The trees selected were yearlings of the following varieties, planted so as to ripen in rotation. Old Mixon, Reeves Favorite, Elberta, Golden Globe, Crawford's Late, Fox' Seedling and Ford's Late White. Should I plant another orchard, I would substitute Belle of Georgia for Old Mixon, and with Elberta and Crawford's Late, confine the orchard to these three varieties.

After setting out the trees, I cut off all the branches and topped off the switches two feet above the ground. Another time I would start the limbs out one foot above the ground, as by so doing, they assume a more perpendicular growth and are less likely to break under a heavy load of fruit.

The trees made a rapid growth, as the soil was rich in nitrogenous plant food, especially where the leguminous crops were plowed under. The little whips sent out sprouts up their entire length and I frequently had the men go through the orchard and rub them all off except three or four at the top, so that by the time fall came, the orchard had quite a respectable appearance. The first and second years I planted corn in the orchard, and by cultivating it, all the weeds were kept down.

I made a mistake not to start spraying the first year, for while I believe the nursery stock was free from San Jose Scale, some of the trees were infested the third year, at which time I began spraying.

In fighting San Jose Scale, I first used crude petroleum, which seemed to me more effective and more easily applied than the sulphur, lime and salt solution, that I used later. Peach orchards should be sprayed with Bordeaux mixture, at least three times annually.

The third year I also started worming the trees,

an operation with which all peach growers are familiar, and which they know must be done thoroughly. I found wood ashes helpful in keeping the worms down.

As to the cultivation of the orchard, I adopted the following plan. The plows were set to work in the spring as early as the ground was in a fit condition. It was then harrowed, and kept harrowed until the middle of July. In this way all the plant food in the soil went toward the development of the fruit. I then sowed the orchard with some leguminous crop, that, of course, required plant food and allowed the trees to harden for the winter. This crop furnished late pasture for sheep, as well as a winter cover crop for the orchard.

Severe pruning is necessary if the best results are to be obtained. In pruning I treated each tree as an individual, and not the orchard as a whole, for I rarely found two trees that needed pruning alike. As to heading in, I believe it is to be recommended if thoroughly done every year. When the plan is systematically carried out the fruit buds are driven down lower on the trees, facilitating the picking operation and also greatly reducing the danger of splits when the trees are in full fruitage. But to head in one year and not another is hardly the part of wisdom, as it means the loss of the greater part of the fruit buds and consequently the peach crop for the following season.

The subject of thinning is one that can hardly receive too much attention. I believe, that unless the set is very light, thinning is both economical and profitable. It is economical in that it saves time in picking when the fruit is ripe, and profitable because of the larger fruit raised in consequence of the smaller number borne. I practiced thinning from 8 to 11 inches apart, and rather prefer the former, except in cases where young trees are overloaded. Large peaches always sell, while our markets are glutted with small or indifferent fruit.

Peaches require perhaps the most careful handling of any of our fruits, and yet, how often we find the pickers pressing their thumbs and fingers in, to see if it is ripe enough. I once had a man that I caught standing on his step ladder picking peaches and throwing them into his basket on the ground. For picking baskets, most growers use the round-bottomed half-bushel baskets. These are gathered up in a spring wagon and taken to a convenient sorting house, where the fruit is sorted into grades and packed, ready for transportation. As I hauled nearly all of my peaches to Wilmington, Delaware, I did not go to the trouble of wrapping them, though in shipping. I think it is better to do so, as they are then sure to

reach the markets in good condition. For local trade, the ordinary peach basket serves its purpose, but for shipping in cars, it seems a very expensive receptacle, not only because it is easily upset, but also because the fruit in the bottom of the basket is sure to be bruised. Wrapping costs a little more, but the fruit arrives in the market in better condition because of it, and the higher prices it can command will more than pay for the extra expense.

Selling through commission men is often looked upon with disfavor, but I have resorted to this way of disposing of a great many loads, and was always satisfied with the returns. Many growers have been successful in raising peaches of excellent quality, only to fall down when it comes to selling them. It is a problem for each grower to work out for himself, making use of every legitimate means to secure good prices. Selling peaches is an art in itself, but where there are enough growers in a community to warrant buyers going direct to the shipping points and buying the loads as they drive up, this end of the business is very much simplified.

Peach carriers cost a little more than baskets, and yet, what strawberry growers think of that when buying his strawberry crates? If it pays the Georgia and California peach growers to ship in carriers, why not the other Southern growers? I never had to ship in cars, or I would have used this form of package, as I believe it to be the most economical in the end.

The greater profits can be secured only through the most careful handling, honest packing, and prompt delivery of the fruit into the homes of the consumers, in the most attractive package possible, consistent with reasonable economy.

The peach business to-day is of such importance, and responds so readily to close care and attention, that its highest possibilities can be attained only by earnest thought and attention to every detail of the business.

L. H. COOCH.

KILLING BROOMSAGE.

I noticed some time ago where a man wanted to know how to kill broomsage. I have had some experience with broomsage and will give it for what it is worth. Ten years ago I rented a farm that was covered with broomsage. I plowed a few rounds around the field and set it on fire, worked it in corn and wheat and wheat a second time and sowed it in grass. The whole farm was treated in this way and the broomsage has failed to make its appearance since. The broomsage was very thick. I do not know whether the burning or the working killed it, but it is gone.—Nat'l. Stockman.

FORMULA FOR SPRAY MIXTURES.

COPPER SULFATE SOLUTION.

Copper Sulfate (Bluestone).....2 to 4 pounds
Water50 gallons

Dissolve the copper sulfate in a bucket of hot water, as it dissolves more quickly in hot water; and dilute to the desired quantity. *Use wooden or earthen vessels for copper sulfate solution.* This solution is to be used on dormant plants, before the leaves have expanded.

BORDEAUX MIXTURE.

1.
Copper Sulfate..... 4 pounds
Unslaked Lime..... 5 pounds
Water50 gallons

2.
Copper Sulphate..... 3 pounds
Unslaked Lime..... 6 pounds
Water50 gallons

For all stone fruits, after leafing out.

No. 1. can be used on those plants during the dormant season.

Dissolve the copper sulfate as mentioned above, slake the lime in a bucket of water and dilute with several gallons of water and strain through a coarse cloth to free the mixture of the small lumps. They interfere with the free flow of the mixture through the spray nozzles. Mix the two solutions together after diluting each to 25 gallons. Use this for rots, molds, mildews and all fungus diseases. For potato blight add two pounds more of copper sulfate.

A combined fungicide and insecticide for biting insects may be made by adding 8 ounces of either Paris Green or London Purple, Green Arsenoid or Arsenate of Lead to the above.

AMMONIACAL COPPER CARBONATE SOLUTION.

Copper Carbonate6 ounces
AmmoniaAbout 3 pints
Water50 gallons

Dissolve the copper carbonate in ammonia in a closed wooden or earthen vessel and add to it the required quantity of water when ready to apply. As ammonia varies in strength, some care is necessary to use no more than is needed to dissolve the copper carbonate. This preparation is used for the same purpose as Bordeaux, but is intended to be used only when fruit is nearly grown, as Bordeaux sometimes affects the skin of ripening fruit.

KEROSENE EMULSION.

Hard Soap $\frac{1}{2}$ pound
Boiling Water1 gallon
Kerosene2 gallons

Use "soft water" (preferably cistern water.) Dissolve the soap in the boiling water; add the kerosene and churn violently until the mixture becomes like buttermilk—not less than five or ten minutes. Dilute with water ten to fifteen times before using.

For sucking insects.—For scale insects use strong emulsion, and apply while the insects are still in the larval stage. For plant lice, mealy bugs, red spider, etc., the weaker solution may be used. Soft bodied insects like the cabbage worm may be destroyed with this solution.

LIME, SULPHUR AND SALT MIXTURE.

Lime, 15 pounds (unslaked), Sulphur (flowers) 15 pounds, salt 5 pounds, water 50 gallons. Put four or five gallons of hot water in an iron kettle (20 gallons capacity), add 15 pounds lime. Stir with wooden paddle so as to spread it about, then as soon as in full boiling from slaking add 15 pounds sulphur and mix briskly with lime, adding boiling water as needed to bring the whole mass into a thick paste then add water enough to make 10 or 12 gallons and boil from 30 to 40 minutes. Add the salt when the paste is diluted. When the wash is cooked strain and dilute to 50 gallons.

LONDON PURPLE.

Use in the same way and in the same proportions as Paris Green, but use more lime to neutralize its caustic properties. It is best not to use this on the peach at all.

PERSIAN INSECT POWDER.

Fresh Powder1 ounce
Water2 gallons

Spray on plants for soft bodied insects. The powder is frequently dusted on plants and is probably preferable to the liquid form. The material is not poisonous to man, hence can be used in dwelling house to kill house flies and mosquitoes. For such cases, first close all doors and windows and dust the room well with the powder (usually at night) and leave it so for several hours. It is a good idea to burn a spoonful or two on hot embers so that the fumes may fill the room. Be sure that the powder is fresh, because when old it often fails to kill.

The above formulæ and the spray calendar have been revised by Prof. H. L. Price of the Experiment Station, Blacksburg.

SPRAY CALENDAR FOR 1906.

PLANT.	DISEASE.	What to Apply.	First Application.	Second Application.	Third Application.	Fourth Application.	Fifth Application.
APPLE.....	<i>Bitter Rot.</i> <i>Scab</i> <i>Codling Moth.</i>	<i>Bordeaux Mixture.</i> <i>Bordeaux Mixture.</i> <i>Paris Green.</i>	First appearance of rot. When buds swell. Just after fall of blossoms.	10 days later. Just before blossoms open. 8 to 10 days later.	<i>Repeat as necessary.</i> After blossoms have fallen. Destroy all windfall fruit.	<i>Repeat if necessary.</i> Pick off wormy fruit.	
BEAN.....	<i>Anthracnose.</i>	<i>Lime Sulphur and Salt Mixture.</i> <i>Bordeaux Mixture.</i>	Just before buds swell. When plants are 2 to 3 inches high.	10 days later.	also good for scab. <i>Repeat as needed.</i>	Soak seeds 1 to 2 hours. In double strength Copper Carbonate solution before planting.	
BLACKBERRY.....	<i>Rusts.</i>	<i>Copper Sulphate.</i>	Before buds open.	<i>Bordeaux</i> after blossoms have fallen.	<i>Repeat as needed.</i>	Dig up and burn all badly diseased plants.	
DEWBERRY.....	<i>Cabbage Worm.</i> <i>Harlequin Bug.</i>	<i>Pyrethrum or Paris Green Insect Powder.</i> Hand pick them; also plant an early crop of mustard or rape.	When worms appear. When first leaves appear.	<i>Repeat as needed.</i> Repeat in 10 days.	tunmips as trap crop under side of leaves	s, and spray with Kerosene Emulsion, when the bugs are on them.	Emulsion.
CABBAGE.....	<i>Melon Aphids.</i> <i>Beetles.</i>	Destroy all plants <i>Paris Green.</i> <i>Bordeaux Mixture.</i>	When first leaves appear. Before buds open.	lice appear; spray Repeat in 10 days. Before blossoming.	Just after fruit has set.	10 days later.	Repeat if necessary every ten days during growing season.
CANTALOUPE.....	<i>Anthracnose.</i>	<i>Bordeaux Mixture.</i>	Before buds open.	After fruit has set.	10 days later.	which will at once answer for all.	
GRAPE.....	<i>Black Rot</i> <i>Downy and Powdery Mildews.</i> <i>Leaf Folder.</i>	<i>Bordeaux Mixture.</i> <i>Bordeaux Mixture.</i> <i>Paris Green.</i>	Before buds open. Before buds open. First appearance.	After fruit has set. If present, a system is advisable to burn all limbs. Repeat as needed.	10 days later. After fruit has set.	10 days later.	
PEACH.....	<i>Bitter Rot.</i> <i>Leaf Curl.</i> <i>Conker Worm.</i>	<i>Bordeaux Mixture.</i> <i>Bordeaux.</i> <i>Weak Paris Green.</i>	Before buds open. Before buds open. First appearance.	When buds are partially opened (4-5-50 formula). Before buds open. Repeat as needed.	Repeat 3rd when fruit sets.	The loose cotton are und trunk of tree and apply Kerosene Emulsion to it.	
PEAR.....	<i>Curculio.</i> <i>San Jose Scale.</i> <i>Blight.</i>	<i>Arsenate of Lead.</i> <i>Lime, Sulphur and Paris Green.</i> Some as for Peach.	Before blossoming. Lime, Sulphur and Paris Green. Some as for Peach.	When fruit has set. Apply before buds start. Burn all limbs. Beet done a mixture of 1 part murtale of p	Gather and destroy all windfalls every 15 inches below a infected parts. Apply 16% acid phosphat e.		
PLUM.....	<i>Spindle Rot.</i> <i>Curculio Fungus.</i> <i>Blight.</i>	<i>Bordeaux Mixture.</i> <i>Bordeaux Mixture.</i> <i>Strong Bordeaux Mixture.</i>	When leaves appear. Also by repeatedly when plants are 6 inches high.	At intervals of ten to 14 days through out the season. <i>Repeat as needed.</i>	10 off the tree onto sheets and destroy.		
POTATO, IRISH.....	<i>Colorado Beetle.</i>	<i>Paris Green.</i>	When plants are 6 inches high.	<i>Repeat as needed.</i>	10 to 14 days later.		
POTATO, SWEET....	<i>Black Rot.</i> <i>Rust and Mildews.</i> <i>Blight.</i>	Grow slips from clean healthy potatoes. To get clean potatoes before blossoming. <i>Bordeaux Mixture.</i> <i>Bordeaux Mixture.</i> <i>Bordeaux Mixture.</i>	When disease appears. When fruit is set.	10 to 14 days later.	10 to 14 days later.	10 to 14 days later.	
STRAWBERRY.....	<i>Blight.</i>	<i>Bordeaux Mixture.</i>	When fruit is set.	10 to 14 days later.	10 to 14 days later.	10 to 14 days later.	
TOMATO.....	<i>Fruit Rot.</i>	<i>Bordeaux Mixture.</i>	When fruit is set.	10 to 14 days later.	10 to 14 days later.	10 to 14 days later.	

The efficiency of spraying will depend upon the time and thoroughness of the applications. Keep this Calendar for reference during the year. By combining treatments recommended for scab and bitter rot all other fungous disease attacking the foliage and fruit of apple are kept well under control.

Live Stock and Dairy.

THE LIVE STOCK INDUSTRY IN THE SOUTHERN ATLANTIC COAST STATES.

For many years we have been laboring in season and out of season to arouse in our farmers a true appreciation of the value of live stock of all kinds in farm economy. We were well convinced, from long experience and a comparison of the condition of our lands and our farmers with those of other sections and countries in which due attention was given the production and keeping of live stock, that, until our people realized the importance of this subject, neither they nor their lands would advance in prosperity and productiveness as they ought to do. For years, the work done seemed to be practically unheeded. Our farmers would persist in making the production of one or two staple crops the aim of their existence, and to achieve this end, would waste their substance in the purchase of commercial fertilizers and then sell the crops so produced for barely more than the cost of production, and leave their lands constantly growing poorer and less capable of producing a crop. At last, the constant reiteration of the subject and the pressure of decreased production, except at increased cost for fertilizer, has had its effect, and the annual statistics of live stock in the country just received from the Department of Agriculture at Washington go to show that our people have awakened to the importance of the subject. This is most gratifying to us, as it means increased prosperity for our farmers and greater productiveness of our lands. They will cease to be "planters" and become "farmers," and crops will be raised without a fertilizer bill tagged onto each one, whilst the live stock produced will provide the people of the South with the meat, milk, butter and other products for which our money has in the past gone to the West and North in increasing amounts each year. Lands will once again become productive, and instead of bare and gullied hillsides and bottom lands covered with weeds and trash, we shall see the hills clothed with a green sod and the bottoms in productive meadows. "All flesh is grass" is as true now as it was in the days of old, and, with its production in the South, people will increase in numbers and the millions of acres now lying idle in every Southern State will become the homes of a thrifty and prosperous people and our cities will grow in size and consumptive capacity, and provide rich markets for all our farm products. A comparison of the figures just issued with those published a year ago, discloses some remarkable changes in the Southern Atlantic Coast States. Maryland has increased her stock of horses by 12,921

with an increase in value of the total stock of 156,614 horses of \$1,747,906. The farm value of the horses in the State is now \$13,210,382. In mules, the increase in number is 1,257 with an increase in the value of the total stock of these animals of \$196,124. The farm value of the mules in the State is now \$2,020,869. In milk cows, the increase in number is 1,010 with an increase in value of the total stock of milk cows of \$97,145. The farm value of the milk cows in the State is now \$4,452,020. In other cattle, the increase in number is 1,340 with an increased value of the total stock of \$88,140. The farm value of the cattle, other than milk cows, is \$2,458,068. In sheep, the increase in number is 17,665 with an increased value of the total flocks of \$169,863. The farm value of the sheep in the State is now \$708,130. In swine, the increase in number is 5,806, but, owing to the decline in price of hogs, during the year, there is a decrease in value of the whole stock of hogs in the State of \$19,165. The total value of the live stock of all kinds in this State is now \$24,981,557.

Virginia has increased her stock of horses by 49,376 with an increase in the value of the total stock of 301,882 horses of \$5,807,102. The farm value of the horses in the State is now \$25,442,602. In mules, the increase in number is 6,302 with an increase in the value of the total stock of mules in the State of \$1,021,261. The farm value of the mules in the State is now \$4,948,125. In milk cows, the increase in number is 10,109 with an increase in the value of the total stock of milk cows of \$364,936. The farm value of the milk cows of the State is now \$6,662,893. In cattle, other than milk cows, the increase in number is 86,365 with an increase in value of the total stock of these cattle of \$2,031,753. The farm value of the cattle, other than milk cows, is \$9,197,925. In sheep, the increase in number is 45,213 with an increase in value of the total stock of sheep of \$152,332. The farm value of the sheep of the State is now \$1,056,145. In swine, the increase in number is 23,015, but, owing to the fall in price of hogs, there is a decrease in value of the total hog stock of the State of \$177,981. The farm value of the swine in the State is \$3,812,800. The total value of all live stock in the State is now \$51,542,509.

North Carolina has increased her stock of horses by 16,403 with an increase in the total value of the horses in the State of \$3,482,474. The farm value of the horses in the State is now \$17,793,863. In mules, the increase in number is 24,177 with an

increase in the total value of the mules in the State of \$4,798,300. The farm value of the mules of the State is now \$19,434,800. In milk cows, the increase in number is 65,784 with an increase in the total value of the milk cows of \$2,992,335. The farm value of the milk cows of the State is now \$7,036,109. In cattle, other than milk cows, the increase in number is 135,686 with an increase in the total value of these cattle of \$1,675,888. The farm value of all these cattle, other than milk cows, is \$4,802,748. In sheep, the increase in number is 10,456 with an increase in the value of the total stock of sheep of \$1,749,27. The farm value of all the sheep in the State is \$590,654. In swine, the increase in number is 95,733 with an increase in value of the total stock of swine of \$404,214. The farm value of all the live stock in the State is now \$55,194,303.

South Carolina has increased the number of her horses by 7,473 with an increase in the total value of the horses in the State of \$2,893,814. The farm value of the horses of the State is now \$9,504,053. In mules, the increase in number is 28,121 with an increase in the total value of the mules in the State of \$4,883,828. The farm value of the mules in the State is now \$16,630,500. In milk cows, the increase in number is 21,941 with an increase in the total value of the milk cows of \$1,101,433. The farm value of all the milk cows in the State is \$3,804,540. In cattle, other than milk cows, the increase in number is 43,268 with an increase in the total value of cattle, other than milk cows, of \$555,655. The farm value of these cattle is \$2,445,708. In sheep, the increase in number is 1,187 with an increase in value of the total stock of sheep in the State of \$35,114. The farm value of all the sheep in the State is \$155,488. In swine, there is no increase in number and a decrease in value of \$79,789, owing to the fall in the value of hogs. The total value of all the swine in the State is \$3,590,468. The farm value of all the live stock in the State is \$27,130,787.

The figures from all these States, showing the increase in the value of the total stock, would seem clearly to bear out the conclusion that a better type of animals of all kinds is being kept, and this is in agreement with our own observation and with the greatly increased demand upon breeders for pure-bred stock with which to grade up native stock. This increased demand has now been continuous for several years, and is strongly evidenced by the largely increased number of breeders who are using our columns to offer their stock and who keep their advertisements constantly running. They would not do this if they found no demand for their stock. As better bred stock is secured, better care is taken of it and better results obtained. We commend this sum-

mmary of the live stock interests of these Coastal States to the attention of our readers. It opens up a prospect for increased prosperity, and, if only followed up as it should be, will make of these Southern States great centres of live stock production and distribution.

We have in our great forage crops and corn and cotton seed the means at hand of making cheap beef, mutton and bacon. These, fed to good stock, will enable us to keep our meat house at home and not in the West, and leave a surplus to help to feed the great populations of the Northern cities.

LIVE STOCK KEEPING AND HORSE BREEDING IN VIRGINIA.

Editor Southern Planter:

An all-wise Providence has placed Virginia, geographically, in the forefront, and made her soil second to few States in this grand Union, but the D— created the slave trade, and afterwards, a civil war that devastated the Old Dominion, which pulled us down from one of the leading States to one of the last. Thanks to the people who cannot be kept down, but who, like "truth crushed to earth, will rise again," we are fast regaining that position due us for the reasons given in the first few lines of this article.

Now the battle cry and slogan is "On to Virginia and the front, young men," instead of "Go West, young men," and the young men are answering that call. Our people are, by their love for the old State, and with the help of reinforcements from other States, regaining lost ground and pushing to the front.

With our climate, land and other natural advantages, why shouldn't Virginia be in the front ranks?

Heretofore, tobacco has been, in a great many sections, the main crop; no stock to make manure and enrich land, but throughout this, the great Shenandoah Valley, the Southwest and certain parts of Eastern Virginia, the lands are being enriched, as well as the farmers, by keeping good stock and feeding the products of the land on the farms. Numbers of farms in the State have been made profitable and fertile by stock raising. In writing of profitable stock raising, it is unnecessary to mention that failures on stock farms are not unheard of, for such cases are occasionally noted, but they are rare; but never have I seen or heard of a failure of a man or firm who bred and raised draft horses, and the reasons are obvious to one who will study and note the conditions of the market, and the light expense, comparatively speaking, of raising and fitting such stock for the market.

In breeding and raising good draft horses, the big draft mares do all the work on the farm and raise a colt each year. The cheapest labor can be employed to work the mares and break the colts, and any farmer's boy can break a draft colt for market, while the breeder of the lighter kinds has to keep the mares from year to year almost without sufficient employment to pay one-third of the cost of keep, and the labor necessary to handle and break such horses for the market is "skilled" and, consequently, high priced. Again, the produce of the heavy drafter can be sold at 3 years old and under to farmers, if not to regular shippers, at figures much higher than those of the lighter classes, and the certainty of getting what you breed for from heavy draft stock is almost assured, while on the other hand, the breeding for speed, high-steppers, hunters, etc., is an uncertainty, a gamble. A blemish, no matter how slight, will not be overlooked or tolerated by a dealer in light horses, while a blemish that does not render a horse unfit for draft purposes will not materially affect the price.

Another feature that is to be considered in breeding for profit is this: the draft colt is not near so nervous or gay, and not as liable to injury in the field, barn or harness.

The speed and sporting horses should be bred by the millionaire who is farming for fun. "Let the shoemaker stick to his last" should be remembered by the farmer who is farming to support his family and to educate his children and leave them a home.

The better bred the stock, the more profitable, goes without saying.

JNO. F. LEWIS.

Rockingham Co., Va.

BREEDING MULES.

Editor Southern Planter:

Having a fairly large plantation at Elko, my study has been to develop same on profitable lines, which would at the same time be pleasant and tend to improve the land. For many years I have been largely interested in heavy teaming in the large cities (owning many heavy teams), and have found that for general purposes and lasting wear, the well-bred mule out classes and outlasts any horse I could buy. Naturally, my mind seized on these practical facts in my experience, (corroborated by the experience of other self-made men, in the same line of business), and I selected from my own stock, and secured by purchase, a lot of the best heavy brood mares to be used in my farm work, and at the same time, bring me mule colts every year. These colts will be all clear profit ahead of the man who works horses! My mares weigh from 1400 to 1750 pounds each, and

were selected rather because of conforming to the ideal type of draft horse than on account of size. I will not keep a single horse on my place, as I want work and colts, and if the farmers of Virginia would carry out this plan, our State would soon have plenty of good stock to sell, and at the same time, make heavy quantities of manure to enrich the land. In fact, the endless chain of prosperity is started by increasing the stock on our farms, and the presence of well-bred stock so improves the tone of farm life, that our boys will stay with us, and the best farm hands will seek work with the man who has good horses and mules, rather than with the neighbor who works an old horse and steer in his plow.

Going back to the subject of horses and mules, I recently had to pay one thousand dollars (\$1,000) for four mules for city work, and, knowing as I do how cheaply mules can be raised, I determined that I would raise my own high headed dead down haulers from this time forth. Having the mares, which are only half the outfit, I looked around for a suitable Jack, and finally had to send a thoroughly experienced representative to Kentucky to secure an animal of sufficient merit to head my breeding stock. This man travelled over seventeen (17) counties and looked at one hundred and sixty-eight (168) Jacks before selecting "Alexander," a 15-2 hand black Jack, with white points, good conformation, and coach horse style. For this animal, I paid one thousand dollars (\$1,000) in Kentucky, and have had all the expense and trouble of bringing him to Elko, but do not regret the purchase, at it is imperative that only the best males be used, if we desire to improve our stock. Already, some of our neighbors have solicited the privilege of sending their mares to him, and I will book a limited number of selected mares for the season. Three years from now, mule buyers will be coming our way, with big, fat pocket books, and our mules will bring more than the other fellow's five year old horses. "Alexander's" yearlings in Kentucky show great merit, and leading horse and mule dealers of Lexington pronounced him the best Jack that ever left the State. With him I secured three Jennets in foal to other registered Jacks. To sum up the pith of this letter is contained in this sentence: Sell your horses, be they one or ten, and get an equal number of good mares, and breed to the best Jack in your county: the result to you will be an equal amount of work done: an increased amount of manure and an annual mule to sell.

If others enjoy and get as much profit out of "The Southern Planter" as I do, your circulation ought to soon pass the quarter million mark.

CLARENCE PETTITT.

Henrico County, Va.

MORE ABOUT THE SHEEP'S STOMACH.

Editor Southern Planter:

In the last issue we discussed the most common stomach troubles in sheep and now it might be well to study the anatomy of the stomach and learn something about drenching a sheep.

If you are like the writer, the representations of the stomach, as seen in the books, are confusing until you have actually dissected a stomach and determined the relations of the parts. A diagram is often helpful in making these matters clear. The accompanying diagram is not a drawing at all, and is not intended to show the parts as they actually are, but changes the location so that all the parts, in about

The first stomach is used for the storage of the unchewed food. Muscles in its walls shift the food around so that the food recently swallowed is passed to the bottom and mixed with digestive juices. The chewing of the cud is simply the remastication of masses of food that are passed up to the mouth by a sort of back action of the muscle fibres of the oesophagus. As the well chewed food comes back, the sheep can pass the more liquid portions on into the other divisions of the stomach, while the part not yet thoroughly masticated may go again into the rumen and await its turn to be again lifted and re-chewed.

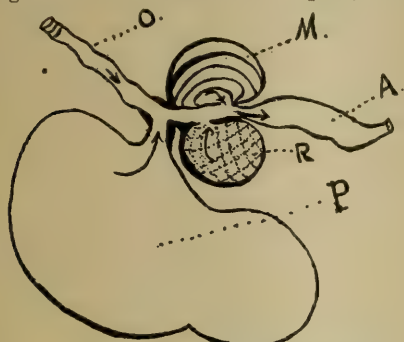
The rather liquid portion that passes on to the other stomachs is literally squeezed along the muscular canal communicating with them and certain liquid portions pass through the slit in the floor of the canal into the second stomach, while certain more solid portions are forced up into the third stomach, where, between the many leaves, or flaps, of this singular organ, it is rubbed and squeezed and further prepared for final digestion in the fourth stomach.

Just how the control of these muscular stomachs is effected so they will work together, is unknown; but it is carried out by involuntary muscles that were made to do perfectly that which is committed to them. You can well see how easy it would be to get such a complicated stomach out of order.

We may now understand better some matters about drenching sheep. It is generally believed that when a sheep takes (leisurely) water or liquid food into the oesophagus, the bulk of it passes on into the fourth stomach without stopping in the rumen. It may be that the opening into the rumen may involuntarily be partly closed. If the sheep, however, is placed on its left side, it has been shown that most of the liquid passes into the rumen.

It seems that the diagram makes this natural. If the sheep be standing, the easy road for a fluid would be straight on to the fourth stomach, unless the dose is forced too fast, so that the muscles along the canal re-act and force the fluid back into the rumen or into the reticulum. If the sheep is placed on its side, the passage into the fourth stomach is now slightly turned up and the direct passage is into the rumen.

So, in drenching for stomach worms, or other troubles of the fourth stomach, allow the sheep to stand, slightly elevate the head and give the drench slowly. The writer has had best success with a six ounce bottle into the neck of which he has fitted a thick-walled, soft rubber tube about five inches long. By holding the tube between the fingers, you can shake the dose in the bottle before using and the rubber tube can be inserted easily at the side of the mouth on top of tongue. The sheep can catch the tube in its



O, Oesophagus; P, Rumen; R, Reticulum;
M, Monophyllis; A, Fourth Stomach.

their relative size, may be seen distinct from each other with the communication between the parts somewhat simplified. When the stomach is removed from the sheep, the four parts are all so massed together that it is very hard to make out their connections and it would be impossible to make a drawing on one plane that would show all the parts.

"O" is the oesophagus, or gullet, which ends at the stomach in a canal, which you notice has openings into the four parts of the stomach; viz., "P," the first stomach, or rumen, sometimes called the "paunch;" "R," the second stomach, or reticulum, sometimes called the "honey-combed stomach," because of the cells formed in the lining that resemble the cells of the honey comb; "M," the third stomach, or manyplies; "A," the fourth stomach, or abomasum, at the farther end of which is the beginning of the intestines. The fourth stomach is the true stomach. There the gastric juice carries on the most important part of digestion. The other divisions of the stomach were provided to facilitate the preparation of the coarser foods for digestion. In the lamb, these are not well developed and the milk passes right on to the fourth stomach, the opening into the second stomach being a slit, which may remain closed while the liquid food passes over it.

teeth and stop the dose, but this is all right, for it lets it go down slowly. With the thumb pressed into the side of the mouth where there are no teeth you can make sheep open its mouth and then another swallow of medicine will pass into the mouth. By this plan, there is never danger of strangling a sheep, which may mean death when giving gasoline.

We shall now be ready to study the parasites of the stomach.

H. B. ARBUCKLE.

MONTVIEW STOCK NOTES.

The Southern Planter as an Advertising Medium is Not Excelled.

Only recently, Montview Stock Farms, owned by Congressman Carter Glass, of Lynchburg, announced through The Southern Planter, that they would sell high-bred, registered Jerseys and Berkshires, and Mr. Glass writes, that sales in each line have paid for the advertising done nearly a hundred times. Jerseys and Berkshires have been sold in Virginia, West Virginia, North Carolina, South Carolina, Georgia and Alabama, and inquiries have come from as far away as North Dakota.

Among the sales of Jerseys lately made, have been two splendidly bred heifers to Mr. Henry Gilmer, a prominent lawyer of West Virginia, one of them a granddaughter of the famous cow Matina of Riverside, that tested 27 pounds and 13 ounces of butter in a week, and milked nearly eight gallons per day. Mr. Gilmer also bought of Montview Farms, a magnificently bred young bull, a pure St. Lambert.

Montview Farms also sold recently to Mr. J. W. Dwyer, a West Virginia banker, a beautiful St. Lambert heifer, out of a high testing cow, and to Mr. William Dickinson, mine operator of the same State, three splendid daughters of the imported bull Golden Peter, out of excellent cows.

Major Venable, of Farmville, secured from Montview a young bull, sired by Maret's Flying Fox, imported, out of Credly 2d, one of the best St. Lambert cows in Mr. Glass' herd, now milking at the rate of \$174.96 net over her ration.

Three weeks ago, two magnificent cows and a Flying fox bull, were purchased from the Montview herd by a prominent Lynchburg lawyer and shipped to a friend who owns a high-class stock farm in

Georgia; and the purchaser writes to Montview, that "the cows are as handsome as I ever saw." The young bull was a prize-winner at the Interstate Fair and was pronounced by Mr. D. W. McSaury, the New York breeder, a splendid animal.

The farmers of Campbell and other Virginia counties are beginning to appreciate the importance of thoroughbred dairy stock and Montview Farms have recently sold quite a number of young bulls, at reasonable prices, to grade up small herds of the farms of enterprising country people.

In the Berkshire line, shipments have been made all over Virginia and to other States. Two splendid young brood sows went recently to the Government Experiment Station, in Alabama. Every young boar has been sold from the Farms and the only offering at this time is a lot of typical young sows, bred to the great Royal English prize-winner, Manor Faithful.

"We want to bear testimony to the efficiency of the Southern Planter as an advertising medium," writes the owner of Montview Farms. "Nine-tenths of our sales are directly traceable to your publication, as are a like proportion of the inquiries for stock. Our advertisement in your columns has paid for itself a hundred times over thus far."

SHORTHORN CATTLE AND SOUTHDOWN SHEEP IN VIRGINIA.

Messrs. R. J. Hancock & Son of Ellerslie Stock Farm, Albemarle Co., Va., write us that they have recently purchased from P. S. Lewis & Son, of West Virginia, a young bull, calved 24th Feb., 1905, sired by Frankie Lad, second at the International Show, dam 16th Beechwood Duchess by Imptd Lavender Lad, grandam 6th Beechwood Duchess, by Lord of Spring Creek, a grandson of Imptd Baron Victor. This young bull is a finely developed animal and promises to make a splendid Herd Header for this old established herd. His breeding is good; and the reputation of the Beechwood Shorthorns, from which he comes, is well established.

Messrs. Hancock's Southdown lambs of this year are sired by a Canadian prize winning Buck from the flock of the Hon. Geo. Drummond, who bred the Champion flock at the St. Louis Fair. This is one of the oldest Southern flocks in the State and has always been kept in lines of good breeding and in a fine, healthy condition.

The Poultry Yard.

POULTRY NOTES.

From the correspondence that I received relative to incubators and brooders, it would seem that every one in the universe and their cousins, uncles, and aunts reads *The Southern Planter*. It is gratifying to note the interest manifested in the poultry department. March is the month when every one who intends to hatch chicks that will do them good at the right time must get busy, very busy. Chicks hatched during this month will begin to lay in September, if fed right. Do not over-feed, but keep them growing. We expect two large broods before these notes will reach the readers of *The Planter*, and we will not allow our incubators to get cool before July 1st. We want to hatch and raise at least 2,500 chicks. If one would read the various incubator catalogues and brooder testimonials, this would seem to be a very easy matter. It would simply amount to a matter of getting 2,500 fertile eggs, put them into their particular machines, at the expiration of 21 days take out 2,500 chicks, put them into their "raisemall" brooders, and you've got 'um. Alas, Bruno, 'tis not so. There are blood rings, dead chicks in the shell, cripples, chilled chicks, roasted chicks, "bowel trouble," gapes, pip, colds, over-fed chicks, smothered chicks, lice, mites, rats, cats, owls, hawks, jackdaws, minks, dogs, black grip, white "enchanters," etc., etc., between this and the final round-up. If we get our 2,500 chicks out of 5,000 eggs we will say, "well done." Our eggs were never better. We hope to hatch a good per cent. and will try to raise "every one." That sounds encouraging. I cannot understand why people cannot be honest in the hen business as well as in any other occupation. No man can sell eggs that are all good. No man can make an incubator that will hatch every fertile egg, and no brooder will raise every chick. Every one knows this to be true. Why do people write and print such stuff? There is too much misrepresentation in all poultry matters. The profits are figured "too big."

I believe that poultry, properly managed, is the most profitable stock that can be kept on the farm. A friend of mine, writing from a Northern city in December last, said eggs were "precious as pearls." I think, much more so. I would rather have two nice fresh eggs in my waffles for breakfast than a quart of pearls. Let us be honest and give the hen credit for what they do and give them a chance to do their best. They are better than a gold mine, because there is no chance about the hen business, but do not believe the "big" stories told about the

wonderful profits in poultry. Even the old, reliable Planter gets caught napping occasionally and prints one of these "whoppers." In the February issue it prints a clipping from *Country Gentleman*, page 129: "A big poultry farm." This man ships 140,000 dozen eggs a year. He keeps his hens on the colony plan, 40 in a house. He has 100 of these houses. This means 4,000 hens. They must lay 35 dozen each to make 140,000 dozen in a year. It takes twelve eggs to make a dozen in Virginia, and that means that every one of those hens laid 420 eggs in 365 days. Remarkable good laying, that.

Some years ago, in a poultry talk at a farmers' institute, I mentioned the fact that I had sold capons at 20 cents per pound and had some that weighed 12 pounds. The following spring, I received a letter from a lady, enclosing a dollar for a setting of capon eggs and this part of the letter underscored: "*I intend to see for myself whether this is true or not.*" That letter taught me to see whether what I read is true or not.

Very many of my correspondents want me to tell them exactly how to operate their incubators in their locality, etc. I must refer all such inquirers to my notes in February Planter, page 122, last paragraph, second column. This is all I can say to any one. There can be no fixed rule or instructions given to operate any incubator under all conditions. I have been operating incubators for 13 years and still find new conditions. There is but one infallible rule, and that is the appearance of the egg at the various stages of incubation. The best way to learn this is to set a hen at the same time you start the machine with the same kind of eggs. Note very carefully how long it requires the hen to get her clutch of eggs warm through to the bottom. You will find that it takes from 24 to 36 hours. Regulate your machine to do likewise. Test the eggs the evening of the fifth day. Note their appearance and compare them carefully. Test again the tenth and the fifteenth day, and regulate the heat, the ventilation and moisture so that the eggs in the machine look as near as possible like those under the hen. If the eggs in the machine are too dark, (the outlines), give them more air: if too bright red, give them less ventilation. If they are drying down too fast, give less air, or more moisture, as the case may require. If the air cell is too small, give less moisture or more air. After the fifteenth day, the egg becomes opaque and nothing can be seen but the size of the air cell. This should show nearly one-fifth the interior capacity of the egg by the 16th day. Keep the machine closed at hatching time. Hang a thermometer in the machine, where

you can see it, several days before chicks hatch, and note the temperature at this place when the temperature on the tray is right, then, when chicks come out and turn your tray thermometer topsy turvy, you can keep your temperature by the hanging thermometer. It takes time and patience to learn to hatch chicks successfully.

CAL HUSSELMAN.

Touching the "whopper" about the "big poultry farm."—During the long years we have edited the Planter, we have made it a rule to use "scissors" with very great caution and as little as possible. Our readers will bear us out in the assertion that there is less clipped matter in the Planter than in any other journal of like character. At times, we are almost compelled to use a clipping, to fill out a column, in a great hurry to keep the press from standing. This was how the clipping in question came to be used. We never clip except from the best conducted journals, and using only these we assume that the matter published therein is reliable, and may be accepted without verification. The paragraph in question shows how possible it is for us to fall down with the use of even the best papers for this purpose. Of course, there is an error somewhere in the paragraph, for no hens ever laid 420 eggs each in one year. We presume the error is in giving the number of colonies. Probably, the number should be 200 or 300 instead of 100. We did not verify the figures when using the paragraph, as the Country Gentleman is one of the most carefully edited papers published, and we therefore relied on it to have verified the figures.—Ed.

THE WHITE WYANDOTTES TAKE THE PLUME.

Editor Southern Planter:

Every fellow thinks his chickens are the best. It may be that he gives his favorites a better chance. At any rate, you must not blame a person for telling about his chickens if they have "covered themselves with glory."

I have loved chickens ever since, as a little lad, my mother entrusted me with the care of them. Those variegated barnyard hens were just as fine to me, as a boy, as the handsomest show pen is to him who knows much more about chickens. I can remember still, after twenty-five years, some of the very hens I liked best because of their good qualities. There was a little blue hen with wide, fan-like tail that was the best mother for little chicks that I have ever known. She was gentle and kind and watchful and industrious, and I could make her raise two sets of chickens, because she loved them so. I have seen her steal off from the second set of chicks to lay,

leaving the little chaps wild with fear as they ran about crying for their mother.

There was another black hen with long, curved spurs that would trip her up if she tried to run. This hen exploded the theory about old hens always being worthless. To my certain knowledge, she was eight years old, and yet, she laid from thirty to forty eggs every year and raised two sets of chickens. She was an expert setter. I used to like to watch her go on her nest. The way she eased herself down upon the fragile cradles of her babies, wooing her little ones with gentle mother tones, and assuring them she would not hurt her darlings, was beautiful to see. I never knew her to break an egg and I firmly believe she brought every fertile egg safely through all the uncertainties and dangers of development.

Then there was a yellow hen with nobby topknot and a black ruffle about her neck that laid the prettiest eggs I ever saw.

There were many more, but as I grew older, I had taken a fancy to Plymouth Rocks and soon replaced the old barnyard hens with the beautiful barred Rocks. I found them not only more beautiful, but more profitable than the common chickens.

Then, by a series of incidents I will not relate, I bought some White Wyandotte eggs of the Dustin strain. These chickens soon became my favorites. I studied them closely and found out their weak points and their good points and kept breeding for the good. I soon learned the style of those large, lubberly hens that were too lazy to lay, and avoided these. Everybody knows that Wyandottes are chickens of fine size, good feeders and have plump, well-meated bodies, but I did not know them as strong layers. After ten years of breeding these chickens. I am sometimes astonished at their egg production. Sometimes, I think they are equal to the Leghorns, but I have a few Wyandotte pullets that I think have taken the plume for eggs and I want to report their performance.

There are only five pullets in the pen and all were hatched after June 1. They began laying in December. In the month of January, the five pullets laid 129 eggs, and during the 12 days in February they laid 51 eggs.

At \$3 per dozen, these eggs will bring \$45, which is a good income for five hens for 43 days, more than \$1 per day. Their feed for this time cost less than \$1.50. You may ask if I have actually sold the eggs at that. Not all of them, but they are selling at that, and you could not blame White Wyandotte people buying eggs from such hens, could you? For a record in mid-winter, I think this is hard to beat in any breed, but one pullet deserves the plume. From Dec. 5 to Feb. 12, she has produced 62 eggs.

H. B. ARBUCKLE.

The Horse.

NOTES.

The future of the newly formed Virginia State Fair Association seems fraught with bright prospects, and with the consummation of plans now formed, we are likely to witness a splendid exposition here this fall of the agricultural and mechanical resources of our State. This is evidenced by the statement prepared by the committee—Messrs. John Stewart Bryan, Alfred B. Williams and Charles B. Cooke—which sets forth, in an admirable manner, the advantages of a State Fair in Richmond this fall, as, quoting the language of these gentlemen, "it shows the great opportunity that is offered the city of Richmond to show her enterprise and impress on the people of the State that its capital is a city of progress and growth, and is entitled to their interest and good will." Not only is this trio of newspaper men of prominence entitled to credit for their generous efforts to forward a great and commendable enterprise, but the Committee on Organization, of which Hon. Henry C. Stuart is chairman, with J. T. Anderson, Col. John Murphy, E. B. Sydnor, M. C. Patterson, J. G. Corley, L. O. Miller, Joseph Wallerstein, M. A. Chambers and S. D. Crenshaw, as associates, may also be credited with doing a great part in furthering an enterprise that must be fraught with untold good, not only for Richmond, but for the grand old Commonwealth of Virginia in its entirety.

The Virginia-bred horse, Wickham, thoroughbred son of Willful and Ecliptic, after passing through different hands from those of his breeder, the late Major Thomas W. Doswell, of famous old Bullfield Farm, in Hanover county, is now owned by Harry Giddings, of Oakville, Ontario, Canada, by whom he is well thought of.

The chestnut stallion is now twenty-four years old, and some good winners have come from his loins. By Willful, then the premier sire at Bullfield, from Ecliptic, by imp. Eclipse, second dam grand old Nina, Planets dam by Boston, Wickham was an object of interest from his birth, and later proved himself a race horse, as evidenced by winning the Jockey Club Handicap, 2 miles, at Jerome Park, the Sea-side Handicap, same distance, and defeating, among others, the famous Bramble. At Monmouth Park, he won a mile and a half handicap, again beating a strong field. At four, he ran second in the City and Suburban stakes; ran a mile in 1:41—very fast for

those days—and, in addition, won other races. At five, he was good enough to beat Eole and other great horses, winning big events at Baltimore, Brooklyn, Jerome Park, etc. Up to the present time, Mr. Giddings has sold three of Wickham's get at record prices for Canada.

Among the harness horses wintered in the stable of W. W. Collins, Houston, Va., and which have come out in fine shape to be worked for speed and raced this season, are the pacers, Little Belle, 2:13 1-2, by Sidney; Sport, 2:19 1-4, by Dr. Hooker, and Peter Warlock, 2:23 1-4, by Warlock, and the richly-bred young trotting stallion, Red Court, 38,712, bay horse, by Red Chute, dam Lenice, by Jay Bird, second dam Katia Bells, by Bow Bells, 2:19 1-4, third dam, Fairwater, by Lord Russell, the full brother to Maud S., 2:08 3-4. These are rare blood lines, and the individuality of Red Court is in keeping with his breeding. It was the intention of Mr. Collins to race Red Court during the season of 1906, but it has been decided to keep the son of Red Chute in the stud a year and then have him shaped and prepared for a low record in 1907.

The Virginia-bred stallion, Charade, a product of the Ellerslie Stud of R. J. Hancock & Son, Charlottesville, now in the stud of Hinde and Baker, Forks of Elkhorn, Ky., is kept mostly for the private service of his owners. The bay stallion was a great race horse in his day and has been successful as a sire. He is seventeen years old, and the son of Eolus and Ada Belle, stands credited with many winners, among them being Runnels, Armistice, Leta Duffey, Lady Charade and Sonny.

J. S. Stark, Keelona Farm, Simeon, Albemarle county, Va., has lost by death, due to old age and general debility, the thoroughbred mares Cantey, 19, and Elite, 25, who were full sisters to the beautiful Eolian, by Eolus, dam Calash, by imp. Phaeton.

Glenara, the fine estate of John M. Davis, near Marshall, Fauquier county, Va., has been sold to John R. Swann, a wealthy Canadian, who will breed fancy live stock.

BROAD ROCK.

Inquirers' Column.

CANADA PEAS—SORGHUM—RAPE—BROOM SEDGE.

1. What is the best time to cut Canada field peas for hogs, both in the green state and as hay.
 2. What value has sorghum or Kaffir corn for hogs, both in its green state and as hay?
 3. Can rape be grown and cut as hay and fed to hogs, or must it be pastured?
 4. What value has broom sedge for hogs as a spring and summer pasture? The straw was cut with a mowing machine last fall.
 5. What amount of fresh or green sorghum in weight, would you advise for a growing shoat, also of the Canada field pea and rape hay?
- The above to be their only food outside of some bran and pasture, which latter is mostly covered with broom sedge. The pasture contains about 20 acres. How many hogs can be raised on this land to advantage.

SOUTHERN FARMER.

Charles City County, Va.

1. In your section of the State Canada peas should be sown in February. We have known a crop to do well sown in the first half of March, but this depends on the season. They cannot stand hot weather and must mature before this sets in to be a success. Cut when the peas are just beginning to harden and before the vines begin to dry up.
2. Sorghum and Kaffir corn are both valuable as feed for hogs, either green or cured. Fed green the hogs will make growth on them, but require some grain to be fed with them to make fat also. When the cane is allowed to mature before being cut and then set up in shocks in the field and fed from the shocks hogs will eat a great part of the stalks which the moisture of the land will cause to retain their succulence and sweetness. The grain on the stalks will also largely obviate the necessity for other grain being fed with them.
3. Rape can only be fed green.
4. Broom sedge has little or no value as a pasture for hogs.
5. Feed all they will eat. It is impossible for us to state a quantity per head. Some hogs will eat twice as much as others.—Ed.

LIME.

1. Which is the cheapest, shell lime at \$5.50 per ton, or stone lime at \$1 per barrel?
 2. How many bushels of slacked lime will one barrel of stone lime make.
 3. What is the difference in the strength of the two.
 4. If stone lime is used (I mean ordinary masons' lime) how should it be handled and how much per acre?
- I live in the eastern part of North Carolina. There are no lime kilns near here.

JESSE B. HARRIS,

Beaufort County.

1. The shell lime is much the cheapest.
2. Good rock lime will slake out nearly three bushels for one.
3. There is practically no difference in the lime; both are carbonates of lime. The rock lime is usually more caustic.
4. Whichever lime is used, put it out on the land in

heaps of about half a bushel each and pour half a bucket of water over each heap, and then when it has fallen spread with shovel. You can get either kind of lime at Norfolk. You will find it advertised in this issue.—Ed.

STRAWBERRIES.

1. When is the right time to fertilize a strawberry patch put out last year, so as to make it yield a large crop this year?

2. What fertilizer would you recommend?

SUBSCRIBER.

See Work for the Month for the Garden in this issue.—Ed.

COWPEAS—ALFALFA.

1. I would like to ask you a few questions: I see that some of our farmers are claiming that peas do better when sown broadcast and will produce more hay this way than when drilled and that it requires less peas to the acre.
2. How do you think fairly rich second bottom land with black soil would suit for the growth of alfalfa? Is it better to drill alfalfa with a wheat drill, or sow it as you would clover with a seed sower? Where you have already sown alfalfa and have a fairly good stand in some parts of the field, how would it do to give the whole field a harrowing and resow it?

Bristol, Tenn.

A. D. REYNOLDS.

1. Whilst peas sown broadcast will make a good crop, yet we are strongly in favor of drilling them. The seed is better covered and much less of it falls to grow and much less seed can be sowed and yet equally as thick a stand be secured. Half a bushel drilled will go as far as a bushel sowed broadcast.
2. This bottom land should grow alfalfa well if only the water level is low enough. The water should not stand nearer to the surface than two or three feet. We prefer to sow alfalfa broadcast. The harrowing and reseeded of a partial stand is rarely a success. Better begin again altogether, unless the stand is only missing in places. These should be worked up fine and be re-seeded after inoculation and fertilization.—Ed.

GRASS SEEDING.

I am waiting to put my lawn down in grass. I planted it in annual clover twice this fall, and while the clover came to a good stand, the chick weed soon choked it out each time, so a few days ago I leveled the ground pretty evenly, then applied a heavy coating of well-rotted horse stable manure, then followed it as deeply as possible with Dixie one horse plow, then applied a good dressing of lime, and dragged it in lightly. The soil was just a little too wet to plow. Will that make any difference considering the time of year. Had I best complete the leveling of the land now or wait till Spring? Will I need to break up the land with a plow again in the Spring before seeding the grass? What preparation will be necessary then? What month sow the grass seed? What kind of grass mixture best to sow? The soil is very rich loam with clay sub-soil.

That Southern Planter is the greatest paper I have to do with. I cannot afford to miss reading a single number.

H. N. WALTERS.

Warren County, N. C.

Work the land up into as fine a seed bed as possible at once with harrow and rake and then sow a mixture of Virginia blue grass, Kentucky blue grass, Meadow fescue, Herds grass and Perennial rye grass at the rate of three bushels to the acre. Let the blue grasses and meadow fescue predominate in the mixture. Rake the seed well into the land and then roll. Thanks for compliment.—Ed.

HENS NOT LAYING.

What is the cause of hens not laying? These hens are fat. Have been feeding them on corn, and now feeding on oats. Will hens kept in a small lot or pen lay better than they will to run at large? SUBSCRIBER.

The hens are too fat to lay. A fat hen never lays well. Corn is a very fattening diet and should not be fed in large quantities. A mixture of wheat, oats, corn and cowpeas is better than either grain fed separately. The grain food should always be fed scattered in litter so that the hens are compelled to scratch for it. Curtail the grain fed and make them scratch for what they get. Hens lay better on a run than kept in pen.—Ed.

WORMS IN HORSES.

Advise me how to get rid of worms in colts.
Pittsylvania County, Va. A SUBSCRIBER.

Give twice daily for three or four days a drench composed of turpentine, 1 ounce, and linseed oil two or three ounces, to be followed on the fourth day by a physic of Barbadoes aloes, 1 ounce. For pin worms, inject into the rectum an infusion of quassia chips, one half pound to a gallon of water once or twice daily for a few days and follow by the physic of Barbadoes aloes. All treatments for worms are more effective when given after a long fast. After the worms are expelled the horses should have a tonic to tone up the digestive organs. A good tonic may be made up of Peruvian bark, gentian, ginger and quassia, half an ounce each. Mix and give in the food twice a day.—Ed.

OATS, CORN, COWPEAS.

We have a number of inquiries all asking for information as to fertilizers for these crops and preparation of the land. In this issue we have given information as to the oat crop. Our April issue will be largely devoted to the corn crop and will give the fullest information on all points relating to it, and will also give advice as to cowpeas and other forage crops. For these reasons, and because we are overwhelmed with inquiries more than sufficient to fill a whole issue of the Planter this month, we do not reply in detail to these Enquirers. Read the April and May issues carefully and you will get all the information asked for.—Ed.

BROOM CORN.

Please state in Planter whether you think that broom corn can be grown successfully for market in this section.
Caroline County, Va. C. GRAY & SONS.

Broom corn can be successfully grown in Virginia where ever corn can be grown. The difficulty is in disposing of

the product after it is grown, as there are no merchants here handling it in a wholesale way and there are few large brush factories in this State. In a limited way it can be sold to the small brush factories which are to be found in most cities. There are one or two such makers in this city. We know men who grow it and make up into brushes at home during the winter and sell as a finished product.—Ed.

ALFALFA.

I have one and three-quarter acres sowed to alfalfa September 1 last. It came up well and is still a fine stand, and, as far as I am able to judge, is looking very well. It is old pasture land. I sowed it in New Era cowpeas and cut a fine crop of pea hay off it. Had put one ton of lime on it and just before sowing peas put 300 pounds per acre of acid phosphate on it. Alfalfa seed was inoculated with material obtained from the Blacksburg station. One corner of the piece of land had been in corn two years successively (1903-4) and was rather thin, but made a fairly good crop of hay. Have top-dressed most of this with wood ashes and, at different times, henhouse droppings. Should I top-dress the rest with some high-grade fertilizer, and if so, when? I put on no fertilizer when I sowed it. E. L. BARNES.

Louisa County, Va.

A top-dressing of bone meal, say 400 pounds to the acre, followed by a top-dressing of 100 pounds of nitrate of soda per acre when the crop begins to grow freely, would help it. A good covering with farm-yard manure in the fall should then put it in shape to do well next year.—Ed.

GRASS FOR PASTURE.

We have a field of 14 acres seeded to wheat, which we would like to seed with some good grass suitable for permanent pasture. The field was subsoiled last fall and land was well gotten up. We also have a new ground which has been cropped three years. Land is good, but has a great many stumps, was in corn last year. Please recommend a good grass for new ground and also for the old ground that you think will make a good permanent pasture. The old land is what is called second river bottom. The new ground is hill side and pretty steep. Botetourt County, Va. SUBSCRIBER.

Sow a mixture of Orchard grass, Tall meadow Oat-grass, Herds grass, Virginia blue grass and Meadow fescue, at the rate of three bushels to the acre, on the old land. On the new ground sow the same mixture, leaving out the Herds grass. We would sow with the grass seed on the old ground ten or twelve pounds of clover seed per acre, mixing red and alsike clover in equal parts.—Ed.

ROPE—CHICKENS—CORN.

1. What is the best preservative for a manilla rope used where it has to take the weather and often gets muddy?

2. Which is best floor for a chicken house, dirt or plank?

3. I have seed corn which I cut out of my field. It has four to nine ears on a stalk. Which is the best ear to take for seed, the top, second or lower?

Durham County, Va.

G. K. HUNDLEY.

1 Rub the rope well with tallow.

2. The objection to a plank floor, is that it makes such an excellent hiding place for rats and other vermin. We

prefer a good hard dirt floor raised well above the surrounding ground, so as to keep dry.

3. Take the lowest ears for seed. This will have a tendency to keep the corn from growing too tall.—Ed.

PERUVIAN GUANO—BONE MEAL.

Peruvian guano analyses, ammonia, $\frac{3}{4}$ per cent, 4.30 of potash, 22.40 of phosphoric acid. Fine raw bone has about 4 per cent. of ammonia, 22 per cent. phosphoric acid. Which is the best permanent improver of land and which is the most economical to use, with Peruvian guano at \$35 a ton and bone meal at \$30 dollars a ton? Please give me the address of the Mapes Formula and Guano Co. Campbell County, Va. J. A. DAVIDSON.

If your land needs potash the Peruvian guano would be the cheaper fertilizer to use. In the bone meal you get no potash. The ammonia and phosphoric acid in both fertilizers is about the same and the phosphoric acid in both is in a slowly available form. Usually, however, Peruvian guano is quicker in its action than bone meal and therefore bone meal is more permanent in its results. We have had excellent results from both of these fertilizers. The address of the Mapes company is New York city. T. W. Wood & Sons, Richmond, are the Southern agents.—Ed.

GRUB IN THE HEAD OF SHEEP—WORMS IN HORSES.

1. What will kill or expel the grub, or bot, in the head of sheep?

2. To expel worms from horses which cause them to rub their tail. OLD SUB.

Mecklenburgh County, Va.

1. There is no effective means of expelling the worms from the heads of sheep. When they have attained maturity they let go their hold and the sheep sneeze them out. Some shepherds blow snuff up the nostrils of the sheep to make the sheep sneeze them out, but we think this cruel and unwise.

2 Inject into the rectum an infusion of quassia chips, one-half pound to a gallon of water, once or twice daily and follow by a dose of physic of Barbadoes aloes, one ounce.—Ed.

NITRATE OF SODA FOR PLANTS.

Will you please tell me what is the correct way to use nitrate of soda on plants, how often to use it, and whether to use it in the powder or to dissolve it in water.

MRS. M. JONES.

For pot plants, which is what we understand you to mean, it is better to dissolve the nitrate in water, say a tablespoonful to two gallons of water. Do not wet the leaves when applying this. Apply the liquid once a week.—Ed.

SICK SHEEP.

What is the matter with my ram? He is a spring lamb. His nose runs some, and I put pine tar on it. He is a big raw-boned fellow, and otherwise seems in perfect health I feed alfalfa, clover and red top and corn meal and bran but he keeps poor whilst all the rest of the sheep are in fine condition.

H. J. WOODWARD.

Powhatan Co., Va.

The sheep has probably got influenza, or he may be

pestered with grubs in his head. As the weather gets warmer, he will probably lose the trouble if it is influenza, and if grubs are troubling him, they will let go their hold after a time and be sneezed out. As he gets older, he will probably begin to fill out and lose his raw-boned appearance. So long as he appears otherwise healthy, we should give no medicine. Some sheep, like some men, are naturally raw-boned, and only age cures the defect, and even this is not always a specific.—Ed.

MOLES.

Can you give me an easy and effective way of exterminating moles from front yard of old sod?

Richmond Co., Va.

H. G. TAYLOR.

We are usually opposed to the destruction of moles, as they live almost wholly upon grubs and worms which are destructive to the roots of plants and are, therefore, helpful in getting rid of these pests. In a garden or lawn, they are, however, a nuisance. The surest way to kill them is to use a trap made for the purpose and sold by hardware merchants. Set this trap in the main run into the garden or lawn and, sooner or later, they will be caught. They are very wary about taking poisoned food put into the runs. Probably, they might be killed by using bisulphide of carbon put on cotton batting and placed in the runs. The fumes will kill them if they come along the runs soon enough after the drug is put in.—Ed.

BREED OF SHEEP TO KEEP.

I have read your valuable paper—The Southern Planter—for about two and a half years. I find it full, not only of interest, but most valuable information, from cover to cover. I was much interested in Mr. Arbuckle's article, "A Plea for the Golden Hoof in Dixie Land." I wish to begin sheep raising, and would like to know what breed or breeds are best suited to this section of the State.

Cumberland Co. Va.

CHARLIE BROWN.

Shropshires or Dorsets. Both breeds are giving great satisfaction in the Piedmont section of this State. The Shropshires are the better breed for wool and mutton, and give good lambs. Dorsets meet best the demand for early lambs for Northern markets.—Ed.

SOWING CLOVER.

Will a field of thin land, which was sown in wheat fall with 400 pounds S. C. phosphate and 50 pounds of muriate of potash to the acre, require any more fertilizer to be used on said land in March to insure a good stand of clover? I intend to sow the clover the middle of March.

If the land was in a fair state of fertility and well prepared before seeding, the clover should make a stand without further help, though both the wheat and clover would be helped by a top dressing of 100 pounds of nitrate of soda per acre made after clover has commenced to grow. Harrow the land before seeding the clover and again after seeding and put on plenty of seed—say, not less than 15 or 20 pounds to the acre.—Ed.

COWPEAS AND MILLET.

Several years ago, you made mention of a magnificent crop of cowpeas and millet sown together. If I am not mistaken, it was on the "Bollywood" farm. I failed twice in trying to get a crop of this combination. The first time had too much millet seed and it smothered out the

peas; the last time it was the other way about. Would you kindly, in your next issue, let us know how many peas and how much millet to use. C. N. WILSON.

Norfolk Co., Va.

Sow half a bushel of cowpeas and half a peck of millet per acre. This is a fair seeding for land in good fertility. Much always depends on the state of fertility of the land and its preparation as to quantity of seed required.—Ed.

CORNEB BEEF.

One of your subscribers wants to know how to put up corned beef. This receipt is older than I am, and I am in my fiftieth year. Kill the beast in the evening, cut into cooking pieces and spread on the hide to cool over night. Then, get 4 quarts of salt, 4 ounces of saltpetre and 4 pounds of brown sugar to every 100 pounds of beef. Mix the salt, saltpetre and sugar together and salt down the beef in a water-tight barrel or tub, put on a clean weight to keep the meat under the pickle. It will make its own pickle out of the salt, and will keep indefinitely.

J. WADE ANDERSON.

BURNING SHELL LIME.

I notice inquiry in the February Planter as to the cheapest method of burning oyster shells. About five cords of dry wood to 1,000 bushels of shells will, if properly managed, be sufficient for a kiln constructed in the field where the lime is to be applied. The cheapest way to burn the shells I have ever tried is to cut poles 16 feet long, 4 to 6 inches in diameter, and build a pen 8 to 10 feet high, using poles for flooring, which should be about 12 inches above the ground. (These poles should be green, so as not to burn too quickly.) Then, place a layer of dry wood on the pole floor about 12 inches thick, and also around the sides of the pen. Then fill in with a layer of shells—say, one foot thick—and then a layer of wood, and continue in this way until your kiln is completed. Cover the top of the kiln with green wood. Use dry wood for the filling and for under the floor where the fire should be started. The wood starts the shells burning, and these will burn long after the wood has all been consumed, and with greater intensity. About 500 bushels is the smallest quantity that can be properly burnt in a kiln such as described.

JACOB COONLEY.

Prince George Co., Va.

PEACH GROWING, WHEAT PASTURING, ORCHARD MANAGEMENT.

1. Please advise me what variety of peaches to plant for market.
2. Please advise how late in spring can wheat be pastured with sheep without any injury to the young wheat.
3. Would you advise cutting back apple trees every year for 3 or 4 years. I have some Keiffer pears and peach trees that are 6 years old and have never borne any fruit. Every spring they leaf out and are full of blooms and young fruit, but all drop. I manure freely and cultivate often. W. F. BOOTH.

Northumberland Co., Va

1. Read the article in this issue on planting and managing a peach orchard. Never plant on low lying land or on a Southern exposure. Select a Northern or Northwestern aspect on high ground.

2. The wheat should not be pastured later than this month, indeed, it may not, in an early spring, be pastured even so late as March with safety. It should not be grazed when it has begun to joint.

3. This depends much on the growth made. Only such pruning should be done as will keep the trees in nice shape and with open heads. If they make too long and

sappy growth, do not cultivate after June and plant a crop in the orchard to curtail their supply of food. Your Keiffer pear and peach trees should have their growth checked by ceasing to manure and cultivate them.—Ed.

NUX VOMICA FOR KILLING HAWKS.

How much nux vomica should be used on broilers to kill the hawk and not hurt the chicken?

Notoway Co., Va.

JOHN GIRETH.

Mix half a teaspoonful of powdered nux vomica in a quart of dry meal and then make into a mush and feed to the chickens. The amount may be increased up to a teaspoonful to a quart of the meal, or 5 or 6 drops of the liquid nux vomica for each chicken may be mixed with the mash. Ducks and guineas will be killed by this mash, but chickens are immune against it. The hawks taking the chickens will be poisoned.—Ed.

PLANTS AS SOIL IMPROVERS—RATION FOR HORSES—PEACH TREES—RYE—FARM AND TRUCK CROPS.

1. What forage plant is most valuable for the enrichment of the soil? If clover, alfalfa, etc., are ploughed under, will they come up again and interfere with crops planted where they grew? How is the soil inoculated, where are the germs obtained, and what quantity is required for an acre?

2. What is a good food ration for a work horse?

3. When peach trees have been neglected for some time and have been allowed to send out a large number of long shoots, how far back should they be trimmed? What is the best way to plant a peach tree—that is, what preparation should be put around its roots? How can the tree best be protected from insects?

4. What tools are necessary for a thorough preparation of the soil on a small farm?

5. Does rye thrive in the South? If so, when is it planted?

6. I am a beginner in farming and am desirous of being busy all the year round. Can you suggest a succession of crops for the year, which would enable me to market something frequently and use the ground left vacant for something else? Among other things, I want to raise lettuce and strawberries, so please include them in your list. JAMES N. YOUNG.

New Hanover Co., N. C.

1. All the leguminous crops are improvers of the land in that they gather nitrogen—the most costly fertilizer—from the atmosphere, but it is essential for their growth that the land should be well supplied with phosphoric acid and potash. Read the remarks made in this issue in reply to an enquirer as to the fertilizing value of cowpeas. These leguminous crops supply the nitrogen through nodules on their roots. It is essential that the soil be alkaline or these nodules will not perform their function.

The soil, if it has not already grown the particular leguminous crop to be planted should be inoculated by soil taken from a field which has grown the particular crop to be planted. If soil cannot be procured, the specific germs for the crop can be gotten from parties advertising them in this issue.

2. In an experiment made at the New Jersey Experiment Station, the following rations were found good low-priced rations: For 1100 or 1200 pound horses, hay, 8 lbs.; Corn meal, 6½ lbs.; dried brewers grains, 6½ lbs., cost 19½ cents per day. Hay, 8 lbs.; corn meal, 6 lbs.; wheat bran,

The soil, if it has not already grown the particular le- 5 lbs.; oil meal, 1¼ lbs. Cost 20 cents per day. Fodder

corn, cured bright and free from dust, is also an excellent roughage for horses.

3. Read the article in this issue on planting and growing a peach orchard.

4. Plows, harrows of various kinds, such as the Disc and tooth harrows, cultivators and a roller are essential to perfect preparation of the soil.

5. Yes; rye grows well in the South. It should be seeded in the fall.

6. If you will follow carefully our articles on Work for the Month in the Farm Management and Trucking and Garden sections in each issue of The Planter, you will find that we can keep you fully employed all the year round and with some crop always coming along for sale. —Ed.

ASHES—POTATOES.

1. Will coal ashes have a bad effect on either hen-manure or human excrement, and will air-slaked lime destroy in any way the manurial good of the latter?

2. What is the best way to keep potatoes for seed? I have mine in a cool cellar, but they sprout freely long before time.

F. W. STARR.

Albemarle Co.

1. If you mean by "coal ashes" ashes from burnt wood, then the lime in them will dissipate the ammonia and thus reduce the main element of value in the hen manure and excrement. Ashes from hard or soft coal will not be so objectionable, but they have no manurial value. Plaster is the best element to mix with hen manure and excrement, as it fixes the ammonia.

2. The only way to keep potatoes from sprouting is in cold storage, keeping them near down to freezing temperature, say, 40°. The late, or second-planted crop dug in October or November, will usually keep in a cold cellar until planting time without sprouting seriously.—Ed.

PEACH ORCHARD.

I have just set out an orchard of peach trees and expect to use barnyard manure for the trees. How is the best way to apply same?

Can lime be used to advantage with it? The land is new sandy loam, never been cultivated. If lime is used, what quantity per acre?

W. M. CORBETT.

Pender Co., N. C.

Apply the manure broadcast and work well into the land with the cultivator and then sow cowpeas, and plow this crop down in August or September, and follow with a crimson clover crop to cover the land during the winter. Before sowing the crimson clover, and after the pea crop is plowed down, apply 25 bushels of lime per acre. Do not apply lime now.—Ed.

TOBACCO FERTILIZER.

I wish you to aid me in making a complete tobacco fertilizer for dark tobacco.

Last year, I used China Island Guano, analyzing 9.50 per cent. lime, 20.50 per cent. bone phosphate, 8.30 per cent. ammonia, 2.00 per cent. potash, 9.00 per cent. phosphoric acid. Organic matter and ammonia salts, 28 per cent.

To each bag of 200 pounds, I added 20 pounds high grade sulphate of potash, and applied it at the rate of 550 pounds to the acre upon old lot land, which had been well manured with stable and barnyard manure. The crop was a good one, making about 25 per cent. of good, dark wrappers; but, as I have not sold any yet, I cannot give any further results.

I wish to use the same guano again, upon old lot land,

which I expect to manure well with stable and barnyard manure. Would you advise the use of more than 20 pounds of high grade sulphate of potash, and what else would you mix with this guano so as to make 500 or 600 pounds of the mixture, a good application per acre for dark tobacco?

Please answer in your next issue. I do not think that any farmer could expend 50 cents to better advantage than by taking The Southern Planter.

Dinwiddie Co., Va.

T. E. BRANCH.

The addition of 20 pounds of high grade sulphate of potash to each bag of the China-Guano should make it rich enough in potash to make a first-class tobacco fertilizer, applied at the rate named.—Ed.

COWPEAS—HAY CROP.

1. What variety of cowpeas is best to plant for hay? Last year I planted the whip-poor-will, but the vines grew so long and were so tangled that we could not fork them on the wagon and had to cut them with a briar sythe.

2. I have a steep hillside that I want to get in grass. It was in corn last year, but could not get it ready for rye and grass. If I sow it in clover and timothy this spring without a nurse crop, will I be able to cut a crop of hay this summer?

W. H. W.

Maryland.

1. The Black, Clay, Red Ripper, New Era and Whip-poor-will are all good peas for making a hay crop. They make much heavier yields than do the bush varieties like the Black Eye, but are somewhat more difficult to handle. The increased yield, however, makes it desirable to grow these in preference to the bush varieties. We have excellent reports as to the New Era both for hay and for peas.

2. If the land be rich, you will be able to cut a hay crop this year.—Ed.

HEN MANURE—ONION GROWING.

1. Please advise me as to the best way to utilize hen manure as a fertilizer for corn have quite a lot in barrels under shed, and would like to have your advice as to how to use it to the best advantage.

2. What is the proper mode of cultivation for onions to secure roots of a large size. Have never been successful with this crop.

D. D. BEATTIE.

New Kent Co., Va.

1. Hen manure is a nitrogenous fertilizer and needs phosphoric acid and potash adding to make it a suitable corn fertilizer. Apply 300 or 400 pounds of acid phosphate per acre broadcast and if your land needs potash, which it will not do if you have used lime on it, also apply 100 pounds of muriate of potash per acre broadcast, and then use the hen manure in the rows before dropping or planting the corn, spreading it freely and mixing with the soil. It will then give the corn a start and set it growing freely when it will soon begin to use the fertilizer applied broadcast.

2. Onions, to make large bulbs, require rich land. They can be grown most successfully by setting apart one piece of land for the crop and keeping it constantly growing in fertility by the addition of manure and fertilizer each year. The crop is one of the few which may be constantly grown on the same land with advantage. The following is a good formula for mixing an onion fertilizer to be used with manure or compost.

200 pounds Nitrate of Soda.
750 pounds Cotton Seed Meal.
750 pounds Acid Phosphate.
300 pounds Muriate of potash.

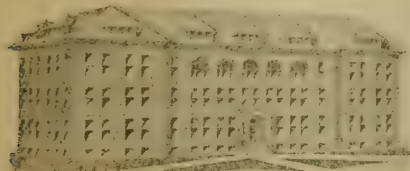
Total 2,000

Apply at the rate of 500 pounds to the acre.

Miscellaneous.

THE VIRGINIA AGRICULTURAL COLLEGE AND EXPERIMENT STATION.

We want to add just one word to what we have heretofore said in advocacy of the necessary appropriations by the Virginia Legislature for the completion of the equipment of the agricultural building at Blacksburg, and for the support of the Experiment Station. Since we last wrote on this subject, a strong deputation from the Committee of the State Farmers' Institute has been before the Committees of the Legislature and through Prof. Soule, made a clear and strong case in support of the appropriation of \$75,000 for the completion and equipment of the agricultural building and for an annual appropriation of \$10,000 for the Experiment Station. In this issue will be found a report of the action of this Committee, to which we invite the attention of our Virginia readers. Since the interview with the Finance Com-



mittees of both House of the Legislature, the Finance Committee of the House of Delegates has had the subject under consideration and has introduced and carried through the House the annual appropriation bill. Whilst we have not yet had the opportunity of seeing the bill as passed, we are given to understand that the appropriation for completing and equipping the agricultural building is fixed at \$60,



000 and the annual appropriation for the Experiment Station at \$5,000. If this be so, we want every farmer in the State to *at once* write his Senator and Delegate, asking them to support a change in these figures to the amounts asked for by the Committee

of the Farmers' Institute. With only \$60,000 the agricultural building cannot be completed and equipped for work. We understand that the Board of Visitors think this can be done for \$60,000. The Board thought the building could be completed for the money they got appropriated by the last Legislature. They made a mistake then, as is evident by the present condition of the building.

This cut shows how far they were able to carry forward the work. Since last October building operations have been at a standstill for want of money, and the building instead of being completed, ready for the equipment in appearance like this cut is a useless two-story shell open to the weather whilst boys are waiting to receive instruction in it. Urge your representatives to prevent the longer continuance of this condition of things, by providing that sufficient money shall without doubt be appropriated. The building it is certain cannot be completed for less than \$50,000 more and \$10,000 will hardly begin to supply the costly equipment of the laboratories and class rooms, so that they can be made effective for demonstrating the scientific work to be done in the building. \$25,000 is the very least sum that will meet this need as estimated by gentlemen who are competent to form an opinion on the subject. Urge your representatives to be insistent that the money be appropriated. The State can afford to give it and it cannot afford not to do so. With only \$5,000 per year allowed to the Experiment Station, much work which Prof. Soule has planned to do in other sections of the State for the help of tobacco and truck growers will have to be left undone. This will be an injustice to those great industries of the State, which have been so long neglected. They need the work doing. They ask for it to be done. It will be done if the money needed to do it is provided. See that you spare no effort to ensure this and do this *at once*, as the Legislature will soon adjourn and then it will be too late for anything to be done for two years. Do not let Prof Soule be hindered in the great work he is doing, and will do for the farmers by the want of the comparatively small sums of money needed, to enable him to continue and extend the work. If the farmers speak out, the money will be given.

THE AGRICULTURAL COLLEGE AND EXPERIMENTAL STATION OF VIRGINIA.

There is wide-spread interest among the farmers of Virginia, in Senate Bill No. 188, introduced by Senator Lassiter, of Petersburg, asking for \$10,000 a year additional maintenance for the expansion of

the work of the Virginia Experiment Station. Two items also concern them in Senate Bill No. 193, asking for funds for the completion and equipment of the building for the State Agricultural College. At the present time the proposed building is but two stories in height and stands exposed to the weather. It is worse than useless in its present condition and is actually deteriorating. It has been shown by very conservative estimates, prepared by experts that it will take \$75,000.00 to complete and equip this building, so as to make it really effective for the purpose for which it was intended. The farmers of Virginia do not believe that this building should be left in its present condition for two years more when their sons are seeking an education along agricultural lines, for it is a fact, that owing to the inadequate equipment of the Agricultural College at the present time, boys seeking short courses are being turned away. With the completion of this building, short courses in agriculture will be offered which will enable many boys of the State to spend ten weeks at Blacksburg and become expert dairymen, horticulturists, stockmen, gardeners, etc., as a cost of from \$50.00 to \$60.00, and the demand for men so qualified is really surprising.

No form of education, therefore, is of more concern and interest to the farmers of the State, and it is certainly not surprising that they should urge this measure upon the favorable consideration of the Legislature as strongly as they possibly can. The sentiment in favor of these appropriations is growing stronger each day, and the wide-spread interest being taken shows that the farmers of the State are alive to the situation at last, and feel that agricultural education and scientific investigations are the two things most needed in order to assist that industry by which more than one million of our population make their living. To improve the condition of our soils and increase their fertility means to add greatly to the present revenue of the State; it means the inspiration of our people and the retention at home of hundreds of boys who now seek opportunities in other localities. The great interest in the movement is shown by the following resolution, passed by one of the strongest business organizations of Virginia farmers, and it is but one assurance of many received by the Executive Committee of the State Farmers' Institute, wishing their efforts to secure recognition for the claims of agricultural education and research Goodspeed:

"Resolved, That we, as a committee appointed by The Virginia Peninsula Produce Exchange (representing four hundred representative farmers on the Virginia Peninsula), endorse the work of the Virginia College of Agriculture and Experiment Station; that we urge upon the State Legislature the

necessity of appropriating the \$50,000.00 to complete and \$25,000.00 to equip the agricultural building; also \$10,000.00 per year additional for maintenance and the continuation of its work."

In order that this matter might be presented in a clearly defined manner to the Legislature, a committee of the State Farmers' Institute which has fostered these requests from the beginning and which has a large and influential membership in all parts of the State, visited Richmond on February 6th and appeared before the joint committees on agriculture, finance and education of the House and Senate. The members of the committee present on that occasion were as follows:

Alex. Black, Blacksburg.
J. O. Cutchin, Elwood.
T. O. Sandy, Burkeville.
J. M. Watkins, Farmville.
J. M. McGill, Jr., The Plains.
A. J. Turner, Port Royal.
J. R. K. Bell, Pulaski.

Benj. J. Purcell, Richmond.
Ex-Gov., J. Hoge Tyler. E. Radford.
H. C. Beattie, Richmond.
W. B. Robertson, Plasterco.
R. A. Clark, Manchester.
Dr. T. W. Evans, Concord Depot.
J. F. Jackson, Richmond.
Joseph Wilmer, Rapidan.
H. T. Armistead, Williamsburg.
F. H. Labaume, Roanoke.
Dr. J. R. Guerrant, Calloway.
C. N. Stacey, Amelia.
Jesse Whitley, Indika.
W. H. Dean, Richmond.
Andrew M. Soule, Blacksburg.

That these gentlemen are interested is clearly evidenced by the fact that they left their business and took the time necessary to go to Richmond at their own expense in behalf of the appropriations in question. At the legislative hearing, Ex-Gov. J. Hoge Tyler, president of the State Farmer's Institute, made the opening address, pointing out the needs of agricultural education and research work in a concise and emphatic manner, and requesting the Legislature to consider very seriously a matter of such vital importance to the major part of the people of Virginia. He said that the time had come when something of value must be done for the farmers.

On the conclusion of the governor's address, Prof. Andrew M. Soule was introduced as secretary of the State Farmer's Institute to explain the work of the College of Agriculture and Experiment Station in some detail in order that the Legislature might be fully informed as to what was being done with the

present revenue and how the money asked for would be expended; what results had already been achieved by the Experiment Station and what beneficial results might be expected to follow the completion and equipment of a building devoted especially to the purposes of agricultural instruction and research.

Some of the data brought out by the several speakers is incorporated in the following resume and should convince even the most skeptical that the State Experiment Station without any support from the State in the last eighteen years has done a work of far-reaching and surpassing importance, and that the College of Agriculture if properly equipped and manned, can do a work along educational lines of great value to the farmers of the State.

The College of Agriculture.

The Virginia College of Agriculture is located at Blacksburg and constitutes a department of the Virginia Polytechnic Institute. There are eleven members of the faculty who also are charged with carrying on the greater part of the Experiment Station work. The men are thus called on to perform dual duties. This is as it should be, provided they are not overloaded, for an investigator makes an excellent instructor as he is in touch with facts and is more likely to be practical in his deductions. The amount paid in salaries to these gentlemen who have charge of the work in eight distinct departments amounts to about \$10,000.00 a year.

At the present time the work of the agricultural department is carried on in an old house, containing four or five rooms and laboratory equipment is sadly wanting. The horticultural department carries on its work in some three rooms in another building. The present equipment is utterly inadequate for the demands made upon it, and this department even has no greenhouse facilities. What can you expect it to do? How can one man be expected to keep up with the work of the Experiment Station, care for sixty acres in orchards and gardens, give instruction in the variety of subjects called for in a general course in horticulture and run the college cannery?

Can boys be educated along agricultural lines? Certainly. Wisconsin appropriated \$40,000.00 some fifteen years ago for a dairy school. Wisconsin's cheese product last year amounted to something over 40,000,000 pounds. The dairy school did it. Minnesota started her school of agriculture in 1883. They have now nearly 1,000 students, and the influence of the graduates has been felt in every part of the State. They have been noted for their success as practical farmers. Ontario, Canada, has an agricultural college with several hundred students. The graduates have formed an experimental union, and now make annually thousands of tests with cereals, grasses, fruits, etc. Those men are known

and respected in the Province and have raised the standard of agriculture marvellously in the last few years. What these States have done we can do in Virginia if we equip our college properly and give it enough money to make a creditable showing.

The value of education in any line is appreciated by men of standing. On the one hand we have the savage; on the other the intellectual and progressive American people. Education has made the difference. Short courses in agriculture, which need not cost the individual student more than \$50.00 to \$75.00 can be provided in Virginia as soon as our building is completed and equipped. Young men whose earning capacity varies from \$15.00 to \$25.00 a month can be trained in a course of ten to twenty weeks to act as foremen, superintendents, orchardists, gardeners, etc., and their earning capacity doubled and trebled and the supply of desirable farm labor materially increased. Would it not be better for us to spend a part of our resources educating and improving our young men before we undertake to supply the need through immigration? At the present time more than \$200,000.00 a year is spent for higher education in Virginia, and a mere pittance, as indicated above, for agriculture. What of the future? No State can ever hope to be truly prosperous that neglects its agriculture. Our soils can be improved; our climate is admirable. Markets are near at hand, and there is a marvellous future ahead of this State if directed along proper lines. Agricultural education and development is the crying need. Shall Virginia be made attractive? People will then flock to us.

The need of agricultural education in Virginia is shown by statistics. We are only growing 22 bushels of corn per acre and raising something like 40,000,000 bushels a year. The yield of corn can be increased 10 bushels per acre by seed selection, by the use of better varieties, through changing the type of ear, through soil improvement, crop rotation and the judicious use of fertilizers. We have facts in our possession that would increase the yield of corn 5,000,000 bushels next year. Is it worth while to endeavor to get this information in the hands of our farmers through institutes, through articles in the press, through bulletins, through the development of the resources of the Experiment Station, through the education of the boys of Virginia?

Some Valuable Results of the Station's Work.

The entire income of the Station is derived from the Hatch fund and amounts to \$15,000.00 a year. The amount of money expended for clerical services and the printing of the bulletins is no small item. With this amount of money the Station has been expected to maintain departments of agriculture, animal husbandry, dairying, botany, horticulture, entomology, veterinary science and field experiments.

When \$9,000.00 of this sum is spent for salaries, \$2,000.00 for labor and \$1,400.00 for publications, it is easy to see how difficult it is to accomplish much without additional funds. Only a few examples of the many that might be given, demonstrating the value of the station work can be mentioned at this time.

Three lots of beef cattle numbering twenty each were fed for 180 days. Those receiving silage gained 5,100 pounds; those receiving mixed hay 3,900 pounds; and those receiving shredded stover 3,400 pounds. With silage costing \$2.00 per ton, timothy or mixed hay \$9.00, and corn stover \$5.00, it is easy to see how cattle may often be fed at a profit or loss, according to the roughness used, and the correspondence coming to the station, shows time and again that the relative merits of various forms of food are not appreciated by our stockmen. 943,079 tons of hay were credited to Virginia by the twelfth census which was valued at \$7,690,022.00. Much of this \$10.00 to \$15.00 a ton hay could be replaced with silage in the winter feeding of cattle and effect a saving of several million dollars a year to Virginia farmers.

The station has also shown that cotton seed meal containing 37.2 per cent. of digestible protein, costing about \$27.00 a ton, is a more profitable food for the dairyman and beef grower than bran containing 12 per cent. of digestible protein, costing \$23.00 to \$25.00 a ton. These facts illustrate the value of the station work to the stockmen of the State.

The average yield of corn per acre in the State is about 22 bushels. If the corn were planted in hills 39.6 inches apart in each direction, there would be 4,000 hills per acre. If there were two stalks per hill the weight of the ears with the yield indicated above would only be 2½ ounces. Much of our land is rich enough, if properly cultivated, to produce an 8, 12 or 16 ounce ear. Through selection and the destruction of barren stalks the yield of corn can be increased from 8 to 30 bushels per acre.

The Station has taken an active part in the development of the horticultural interests of the State. In five years Virginia has shipped 893,591 barrels of apples, which at \$2.00 a barrel would be worth \$1,800,000. At least one-half of this fruit would have been worthless had the San Jose scale not been effectually held in check. The agitation with reference to this pest and the laws governing its control were enacted chiefly through the efforts of the Station.

Last spring the so-called "nitro-culture" was placed on the market at a cost of 02.00 per acre. It was claimed that this material would inoculate land with an especially virulent form of bacteria and enable the production of enormous crops of legumes. In order that the value of artificial soil inoculation might be

determined, the Station undertook the preparation and distribution of cultures at a cost of 25 cents per acre. Cultures were sent out for 3,757 acres of land and a saving of \$6,540.00 effected thereby.

The value of the work done by the dairy department in showing that milk of inferior quality can be taken and treated and shipped from 1,000 to 2,000 miles at highly profitable prices cannot be overestimated, as it opens up a vast new industry to Virginia, and though dairying involves a good deal of labor, still it is one of the best methods by which we can reclaim and improve our worn-out soils. As a result of the Station's efforts to develop an interest in dairying, there are now herds in Virginia, the owners of which are making \$100.00 clear profit from each cow kept.

The entomological department has shown that the lime-sulphur-salt wash will control the San Jose scale and need not cost more than 1½ cent per gallon. If a farmer were to mix and use this compound in his orchard as compared with many of the manufactured articles of doubtful merit now on the market, he would easily save \$50.00 on the operation, and this is a very important matter to every fruit grower.

The value of the cultures sent out by the department of mycology for the making of ciders of uniform quality can not be determined in dollars and cents, but the large number of apples allowed to go to waste each year because they could not be profitably made into cider, makes it clear that this work is worth a good many thousands of dollars to the State.

The veterinary department has sent out something like 15,000 doses of blackleg vaccine, which would be worth at least \$2,500.00, but as the majority of the doses would probably be effective in saving an animal worth from \$10.00 to \$50.00, it is really worth a great deal more.

Besides all this, 10,000 letters are answered each year and the information sent is certainly worth a dollar in each instance. Then, about 10,000 farmers were reached and helped through Institutes last year. Bulletins aggregating 170 pages of printed matter are published annually and distributed to between 12,000 and 15,000 farmers of the State, giving the results of the investigations carried on during the preceding year.

In brief are a few of the ways in which the Virginia College of Agriculture and Agriculture Experiment Station are doing effective work for the assistance of Virginia farmers. Are the modest appropriations sought for unreasonable in the light of these facts; should an opportunity to foster the best interests of Virginia farmers through education and research be overlooked? Surely a matter of such vital concern will receive the needed support. This at least is the belief of hundreds of interested farmers.

THE Southern Planter

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Yielding to numerous requests, we have decided to establish a "want ad." column, where farmers can, at a small cost, offer for sale or exchange, any surplus articles they may wish to dispose of. A rate of 2 cents per word, cash with the order, will be the terms invariably insisted upon; 25 cents minimum charge; initials and figures count as one word. This column will always follow the single column ads. Send in your want ads.

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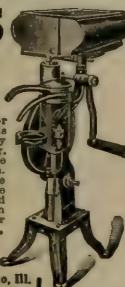
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tioned, and that there was not much that was new to be offered. There certainly was not anything new or startling in sight up to a few months ago. Incubator manufacturers were proceeding for the most part along much the same lines as last year. There was naturally considerable of a sensation, then, when all of a sudden the Cyphers Incubator Company announced that their 1906 pattern standard machine embodied eighteen distinct improvements.

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This immense new factory is the only one in the world given entirely to the making of one style of buggy. Not another bit of work of any kind is handled in it. Not a part of any other vehicle of any sort or description is made here. All the men in this factory do is make Split Hickory Special Buggies.

The enormous demand for these buggies which has made necessary the building of this big factory, has been created through a new plan the Ohio Carriage Mfg. Co. have of selling direct to you. They let you use one of their \$50 Split Hickory Specials, with which they give a two year, legally binding guarantee, a month FREE to prove it is all they claim.

If you don't find it so, you can send it back.

The entire policy of this concern is to sell direct and save all the expense of go-betweens and unnecessary handling for you.

In their other big factories, the Ohio Carriage Manufacturing Co make

What Do You Think of This?

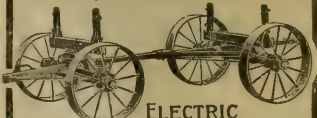
During the past year 15 farmers of Mesa County, Colo., have asked for our catalog about

Electric Steel Wheels and the Electric Handy Wagon

Up to date 14 of them have purchased either a wagon or a set of wheels.

Does that mean anything?

It proves that we have a reasonable proposition. We say that the Electric wide-tired, steel



ELECTRIC

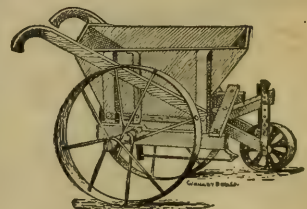
wheels will save you more labor and make you more money in a year than any other thing you could put upon the farm. Several hundred farmers and farmers who have tried them say the same thing. If every test they prove to be the best. The spokes are united with hub solid, can't work loose. Your money back if they do. We don't ask you to take our word for it. Send for our book; read what others say and use your own judgment. Our catalogue is sent free for the asking.

Electric Wheel Co.
Box 146
Quincy, Illinois.



WE'LL PAY THE FREIGHT

and send 4 Buggy Wheels, Steel Tire on - \$47.75. With Rubber Tire, \$14.50. 16" wide wheels \$2.00 in tread. Top Buggies, \$28.75; Sleights, \$10.75. Write for catalog. Learn how to buy direct. Repair Wheels \$4.00. Wagon Umbrella FREE. V. 10045, Cincinnati, O.



A COMPOST DRILL

That will thoroughly pulverize and evenly distribute from one hundred pounds to ten tons per acre made in two sizes by J. M. LINDSEY, Crystal Springs, Ga.

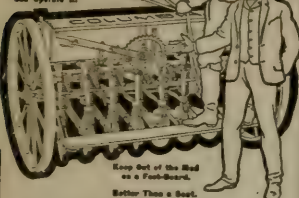
HENCH'S 20th Century
Steel Ball Coupling Cultivator
With Double Row Corn Planter and Fertilizer Attachment Complete on One Machine.
Parallel beam movement, pivoted axle with lateral beam movement in connection with the movable spindle, or other independent of each other, centre lever for spreading and closing shovels. The most complete cultivator on the market, having every possible movement of the shovel gang.
Order immediately and introduce them for next season.
The HENCH & DROMOLD CO. Mfrs., York, Pa.

America's Pride Machines

Always So Convenient.

Longitudinal Lever Set of the Way.

Set on the Hopper and Operate It.



Keep Out of the Mud as a Farmhand.

Better Than a Best.

THE ONLY COMPLETE DISC DRILL.

Don't use old style, out-of-date machines. Note the **Leverage**—guaranteed to lift easier than any other lever made. 6. Patented Longitudinal Lever possesses the following leading advantages: 1.—The ease of the way for filling the hopper. 2.—For easy & in the winter. 3.—For going with Foot-Board or Gang Press Wheels. 4.—Easier to operate at all times and less to operate when sitting on the hopper. This drill with our 2, 3 and 4 row Corn Planter attachment takes the place of corn planter. Our Warranty. After the Foot-Board is used the first season the purchaser may return it if dissatisfied to a new one in exchange. Write at once for our Free Grain Drill Circular F.

FETZER & COMPANY,

Box 15, Middletown, Ohio.

Spring Wagons, Surreys, Carriages, Stanhopes, Phaetons, Carts, Driving Wagons and a full line of Harness. All are sold direct to you and all are fully described and priced in the new 180 page Vehicle Book these people have just gotten out. They send a copy FREE to everyone thinking of buying. A simple request brings it by mail. Address The Ohio Carriage Manufacturing Company, H. C. Phelps, President, Station 294, Cincinnati, Ohio.

USED SLOAN'S LINIMENT AS A PREVENTATIVE.

Mr. Charles Booler, of Rockfield, Ind., writes: During the fall of 1904, I was feeding forty-five head of hogs. My neighbors' hogs were sick all around me; but I gave mine Sloan's Liniment as a preventative. I used in all—three one dollar bottles, and think it was money well spent—as I did not have a hog take sick. It is a good tonic, and I am well pleased with it. If the farmer would use it and keep the hogs in good health instead of letting them take sick, it would be much better.

ANY ONE CAN ERECT THIS SILO.

Among the most advanced types of silos ever put on the market is the Economy Silos. It has many novel features and produces the sweetest and most digestible ensilage. The Economy Silo, as its name implies, does the work with the greatest economy. It is made from the very best materials and can easily be erected by any one. The doors are continuous from bottom to top, and can be removed and replaced by a boy without the use of a hammer, wrench or other tools. While the doors are free from complicated fastenings and easy to adjust, they fit so tight that not a particle of air is admitted and even the ensilage at the doorway does not turn mouldy. The entire silo is absolutely air-tight and keeps the ensilage in the best of condition.

Continuous hoops of best refined iron are used on the Economy Silo and by a unique arrangement, they form a perfect permanent ladder.

This novel Silo is made by the Economy Silo and Tank Co., Frederick, Md., and they have issued a very complete illustrated catalogue "G", which tells all about the Economy Silo and a copy of it can be secured by writing to the above address.

FACTS FROM A FEEDER.

On another page of this issue, we call the attention of all farmers to the ad. of Dr. Jos. Haas, of Indianapolis, Ind., relative to his famous and high-reputed Hog Remedy which has stood the test of almost thirty years before the public. To further convince our readers of this Remedy, read the tes-

"THE ONLY WAY"

The only way to make dairying a success and pleasure is to use a **LANSING TUBULAR SILO** the kind that gives satisfaction.

With Improved Continuous (Air Tight) door-way, guaranteed to preserve its contents.



Attractive prices to early buyers before the rush. Made of White Pine, Tamarack and Western Fir.

QUAKER CITY W. M. & PUMP CO.,

144 N. 7th. Street, Philadelphia, Pa.

Write for catalogue and prices.

Ride OR Walk

PERFECT BALANCE EITHER WAY



The Vacuum

GIX

Any Style Gangs

Many times more in use than any other, which only comes from its Splendid Work and Proper Construction. This plan ought to know.

Avery Mfg. Co., Peoria, Ill.

(gentlemen)—Place and my Catalog "H" and also your descriptive Wagon Catalog. We are using three of your vacuums. Cultivators and they are first class implements. Yours truly,

Gust. E. Miller.

Ask for Catalog H showing our large line of Wagons, Farm and Threshing Machinery. AVERY MFG. CO., 423 Iowa St., PEORIA, ILL.



FREE!!

A guaranteed American made Watch for selling 24 pigs DeKura's Headache Cure at 10c. pk. I. S. LEAKE, 627 N. 22d St., Richmond, Va.

PRUSSIAN

COUGH & DISTEMPER CURE

Cures Cough, Distemper, all Throat and Lung Trouble. Purifies the blood. Put the animal in condition. See Prussian Remedy Co., St. Paul, Minn.

ECONOMY SILO



cheapens the cost of food for your stock and pays for itself the first winter.

Unique in construction, easily put up and absolutely air-tight—no mouldy ensilage. Doors are continuous from bottom to top, and easily opened and closed without the use of hammer or wrench—no complicated fastenings. Strong, handsome, well-hooped and fully guaranteed. Write today for free illustrated catalogue G with experience of users.

ECONOMY SILO & TANK CO., Frederick, Md.

Hallock Flat Tooth Weeder



Kills weeds, stirs top soil, makes dust mulch. Preserves Moisture. Only cultivation needed from start to finish. Seeder Attachment insures uniform sowing and right covering for

Seeds. Cows from 2 to 30 quarts to the acre. Ask for Book of Field Scenes showing weeder at work. Manufactured only by us.

KEYSTONE Cultivator Attachment

for Sulky, Riding, Walk or Two Row Cultivators. Runs on the row, where shovels cannot reach. Uncovers corn, stirs soil, kills weeds. Great cultivator feature. Write for descriptive circulars.

Keystone Farm Machine Co.,

1554 N. BEAVER ST., YORK, PA.

Power that Never Fails

Steam is the dependable power. Farquhar are the dependable engines. The Farquhar Portable Engine shown here is the most durable, simplest and most efficient engine made for the thrashing, sawing or any work when power is required that can be moved from place to place. Fifty years' experience is in every one of

Farquhar Engines
and
Saw Mills

Our new catalogue explains in detail all our Farquhar Engines, Saw Mills and other machinery. We will send it free upon request.

A. B. FARQUHAR
Co. Ltd.
York, Pa.



Increase Quality and Quantity of your Apple Crop and you increase your Income. Decrease your expense for Spraying, and do it better than by hand, by using our 1½ and 2½ H. P. Air-Geared Engines. Write for Catalogue 9

R. H. DEVO & Co., Binghamton, N.Y.



BOILERS-ENGINES

new and second hand, from 2 to 100 H. P.

TRACTION ENGINES, \$225.00 each; 6 H. P. Vertical Engine and boiler, \$110.00; 9 H. P. Vertical Boiler and engine, \$50.00; 12 H. P. Vertical Boiler and engine, \$160.00; 22 inch Corn Burr, \$50.00; Corn crushers from \$10.00 to \$25.00; Gas and Gasoline Engines all sizes, new and second hand boilers from 2 to 100 H. P. New boilers of every description made to order

CASEY MCH. CO., Springfield, Ohio.

To introduce our patented pumps in every country, we will send one pump to the first to write accepting our special offer. Write today.

A Wooden Pump made of iron. Just remove the iron and handle to remove suck-lather. Stock made of steel, base adjustable, brass drain cock prevents freezing. Guaranteed.

"No Tria" 11 repairs done quickly also ground.

"To Fix"

FREE

"Williams" Pump Co., 467 Jackson St., Indianapolis, Ind.



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Whitewashing

and disinfecting with the new "Kant-Klog" Sprayer gives twice the results with same labor and fluid. Also for spraying trees, vines, vegetables, &c.

Booklet free. Address

ROCHESTER SPRAY PUMP CO., Rochester N.Y. 21 East Ave.



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Book "How to Obtain a Patent" and "What to Invent" sent free. Send rough sketch for free report as to patentability. We will verify your patent for sale at our expense.

Chandler & Chandler, Patent Attorneys,
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Always mention the Southern Planter or when writing advertisers.

timonial appearing in the ad. coming from a firm who raise hogs extensively. If all swine raisers would take the advice of Dr. Jos. Haas, and consider the experience of the many customers who feed this Remedy regularly, there would be no occasion to suffer loss from disease and unthriftiness among hogs. A copy of "Hogology", a complete treatise on profitable swine raising, compiled by Dr. Jos. Haas, will be sent free to any one for the asking, and much valuable information will be found in this book.

HINTS BY MAY MANTON.

The round chemisette is always a pretty and becoming one, and here is a waist that includes both that and other attractive features. In the illustration pearl-gray crepe de Chine is trimmed with silk banding and combined with ecru lace but there are almost innumerable materials which are equally well-suited to the model, while again, the chemisette can be of any lace that may be preferred or any one of the pretty inserted materials in lingerie style. As illustrated, the chem-



8240 Fancy Blouse with Chemisette,
32 to 40 bust.

isette is made separate from the waist and closes at the back, so that it can be removed and renewed and varied at will, but it can be made in one with the waist, closing at the left shoulder seam, if that style is preferred, also, the sleeves allow a choice of three-quarter or full length.

The waist is made over a fitted lining, which is closed in the center front and itself consists of the fronts and the back, which are arranged in outward turning plaits. The neck edge is finished with a shaped strap and the closing is made invisibly beneath the edge of the right front. The sleeves

Kills Weeds **Stirs Soil**

ADJUSTABLE

Keystone
Weeder and Cultivator

Makes sure crop, increases yield. Preserves moisture at plant roots. 7½ feet wide, narrows to 30 ins. Famous Hallock flat tooth. Ask for book of many photographed field scenes of weeder at work.

KEYSTONE
Cultivator Attachment

For any cultivator. Runs on the row, where shovels can't go. Weeds, cultivates, uncovers corn, levels. Makes cultivation complete. Send for circulars of Weeders, Cultivators and Attachments. FREE.

Keystone Farm Machine Co., 1554 N. Beaver St., York, Pa.




No Combines or Trus in Cutaways

Clark's Rev. Bush Plow and Harrow cuts a track 5 ft. wide, 1 ft. deep. Connects the sub-soil water. It is an excellent machine for covering in sugar cane. Strength guaranteed.

Can plow a newly cut forest, stump, bush, or bog land; leaves land true, clean for any crop.



Clark's Double Action Cutaway Harrow moves 15,000 tons of earth in a day.




Send for Circulars.

Clark's Rev. Sulky Disc Plow

Made single or double. One or two furrows five to ten inches deep; 14 inches wide. For two or four horses. Light draft. No side draft. No similar plow made. When Clark's grass tools are used a directed in his grass circular, we, the C. H. Co., guarantee them to kill wild mustard, charlock, hardhack, sunflower, milkweed, morning glory, Russian thistle or any other foul plant that grows, or money refunded. Now is the time to commence work for next year's seedling to grass.


THE CUTAWAY HARROW CO.,
Higgennum, Ct., U. S. A.



LEARN HOW TO EARN \$3,000 A YEAR.

FROG RAISING. A business that starts on small investment and brings large returns. Our new book gives you the practical knowledge. Price postage \$1.00. The book will teach you HOW TO BREED, FEED & RAISE FROGS.

MEADOWSBROOK FARM, ALLENDALE, N.J.



WANTED

SECOND HAND BAGS

ANY KIND—ANY QUANTITY—ANY WHERE,
I Pay Freight. Write for Prices.
OEO. T. KING, Richmond, Va.

OPIUM

and Whiskey Habits cured at home without pain. Book of particulars sent FREE. B. M. Woolley, M.D., Atlanta, Ga., 105 N. Pryor St.



MANLOVE SELF-OPENING GATE

ALWAYS IN ORDER.

This gate can be placed at any driveway entrance, attached to ordinary posts and soon pays for itself in time saved.

It is opened or closed by any vehicle without assistance or stopping. By its use run-away accidents are avoided. Machinery is all above ground and so simple it never gets out of order.

It adds to the beauty, value, safety and convenience of any home. Address
MANLOVE GATE CO., 272 E. Huron Street,
Chicago, Ill.



FULL WEIGHT is the brand upon Anchor Fence. Full weight in quality as well as quantity. The full weight of goodness is found in every rod of Anchor Fence. Send for free literature.

Anchor Fence & Mfg. Co.,
Dept. H Cleveland, Ohio.

ORNAMENTAL FENCES

Iron or Wire, built to your order. The finest at lowest prices. Satisfaction guaranteed.



Enterprise
Fence & Co., 402 S. Senate, Indianapolis, Ind.

ORNAMENTAL FENCE



30 beautiful designs. Cheap as wood. All steel. Large catalogue free. Special inducement to churches and communities.
WARD FENCE CO.,
Box B Portland, Ind.

SUPERIOR STONE POST

No more rotten fence posts. Just the thing that meets the present demand. Cheap, strong, durable. Easily made at home or in a large way. Sand, gravel, cement and carbon looped rods as reinforcement. State or county rights for sale. Agents wanted. Excellent profits. Write.

B. F. STULTZ, Elkhart, Indiana.

Wire Fence 20c

Plain stock fence or redwood posts. Best of all. Strong, durable, and easy to install. Catalogue free. Write for free literature. **MAISON FENCE CO.,** Box 40, Leavenworth, Mo.

FENCE STRONGEST MADE.

entitled. Sold to the Farmer at Wholesale Prices. Fully warranted. Catalogue free. **COILED SPRING FENCE CO.,** Box 62, Winchester, Indiana.

Mention **THE SOUTHERN PLANTER** in writing.

also are made over fitted foundations and these are faced to form the deep cuffs when full length is desired.

The quantity of material required for the medium size is 3 3-4 yards 21, 3 yards 27 or 1 7-8 yards 44 inches wide, with 1-2 yard of all-over lace and 3 1-2 yards of lace edging to make as illustrated, 1 1-8 yards of all-over lace, when long sleeves are used.



5261 Child's French Dress, 2 to 8 yrs.

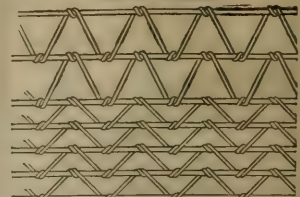
The pattern 5240 is cut in sizes 32, 34, 36, 38 and 40 inch bust measure.

The long-waisted or French dress is always becoming to small children and is equally attractive in wool materials or in those of cotton and lawn. This one can be varied again and again, as it is trimmed in one way or another, or combined with all-over or the material itself. In the illustration, it is made of pale blue cashmere stitched with belding silk and combined with a yoke and lower portions of the sleeves of dotted chaille, but it could be very charming in lawn, batiste and the like, with the yoke and lower sleeves of embroidery, or any similar material.

The dress is made with a fitted body lining, the waist and the skirt. The little yoke is full, and both it and the tucked front and backs of the waist are arranged over the lining while the neck is finished with the shaped band that gives an epaulette effect. The sleeves are quite novel and in one piece, but are held by bands part way of their length, so giving the effect of two puffs. The skirt is straight and is laid in a box plait at the center front, gathered at sides and back.

The quantity of material required for the medium size (6 years) is 5 yards 27, 4 yards 32 or 2 3-4 yards 44 inches wide, with 5-8 yard 27 inches

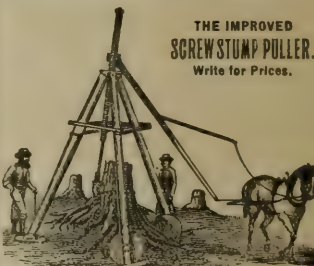
THE FIRST Hartman Stockade Woven Wire Fence



Ever built was erected 17 years ago and is still in use as durable and strong as when first put up. The Hartman is a perfectly woven wire fence that is strong enough to keep in the maddest bull and fine enough to keep out the chickens. It is made of the best quality galvanized steel wire and contains much more material than fences more cheaply constructed. That's why it lasts so long. If your dealer doesn't handle it, write for catalogue and prices. Address

GLEN MFG. CO., 103 Mill St., Ellwood City, Pa.
Also Mrs. Hartman Steel Picket Fence, Hartman Flexible Wire Mats and Glen Steel Mat.

IRON FENCE LOW PRICE - HIGH GRADE CATALOGUE FREE. DOW WIRE & IRON WKS. LOUISVILLE, KY.



THE IMPROVED SCREW STUMP PULLER.

Write for Prices.

Chamberlin M'fg Co., Olean, N. Y., U. S. A.

HERCULES Stump Puller



Clears an acre of heavy timber land each day. Clears all stumps in a circle of 150 feet without moving or changing machine. Strongest, most rapid working and best made.

HERCULES MFG. CO.,
413 17th St., Centerville, Iowa.

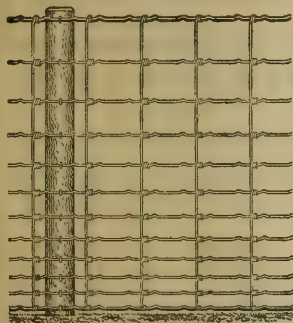


THE GENUINE SMITH STUMP PULLERS. CATALOGUE FREE. W. SMITH GRUBBER CO. LACROSSE, WIS., U.S.A.

American Fence Talks.

American fence is a structure of hard, stiff steel wires, possessing great strength and flexibility, adjustable to uneven ground, sound, durable and guaranteed. Great improvements are continually being made over the fences of years ago. See the modern, up-to-date American fence, built of big lateral wires, with heavy upright or stay wires hinged—the most perfect structure for a square mesh fence.

The thirty plants of the American Steel & Wire Co. make every known grade of wire, from the stiffest wire for pianos to a wire almost as soft as silk for weaving into wire cloth. With these enormous facilities for manufacture and observation of the action of wire in all kinds of service, not only is the best wire made for the use required of it, but for less money.



It is Steel that makes possible the great modern structures like bridges, skyscrapers, locomotives and steamships that people confidently trust. Steel for wire is specially made and becomes stronger and more durable by drawing into wire and annealing. And when thoroughly galvanized by latest improved processes and woven into American fence, makes the most substantial structure about a farm. Properly put up and treated, it is a permanent and money-making investment for many years.

We sell through dealers all over the country. In this way, the buyers' interests are best looked after. Dealer then becomes your business friend and he will see that you are treated right. See him, examine different styles, get catalogue and make selection to suit your requirements. Or, write us direct and we will send catalogue and tell you where you can get the fence.

NOT EXPENSIVE—Prices range from about 17 cents a rod up, according to height, style and location of your place.

American Steel & Wire Co.,

Chicago,
New York

Denver
San Francisco

wide for yoke and lower portions of sleeves and 3 1-2 yards of banding.

The pattern 5261 is cut in sizes for girls 2, 4, 6 and 8 years of age.

We can supply the above patterns at 10c each. Address SOUTHERN PLANTER, Richmond, Va.

PROFITABLE FARM FORESTRY.

The opinion is quite general among farmers, as well as men in other callings, that forest trees cannot be grown with profit to the planter, and that future generations alone can reap the benefits. This opinion is based on the knowledge that our native trees require, under natural forest conditions, from 50 to 75 years to grow to marketable size.

This is true of trees growing in the natural forest, where they are compelled to fight an unceasing battle, the result of which is "the survival of the fittest," but the time required to grow trees to a marketable size is much shorter when the early struggle for existence is practically eliminated, as may be done in artificially planted forests.

There is at least one phase of forestry which gives promise of good financial returns within a period of from 12 to 15 years, and that is the growing of trees suitable for posts, poles and ties as a farm crop. In support of this statement, the following figures show what has been done, as indicated by careful estimates, made by a representative of the Ohio Agricultural Experiment Station, of the salable posts in several Catalpa speciosa and black locust groves, which were planted in Ohio from 15 to 25 years ago.

In making these estimates, a number of trees in each grove were carefully measured. In computing the value of the product per acre, first-class posts were estimated at 10 cents each and second-class at 6 cents each.

Eight catalpa groves from 21 years old, none of which had received careful attention in the way of pruning, cultivating and thinning, and most of which had been planted too closely showed an average yield of 2,777 posts per acre, 63 per cent. of which were first-class, valued at \$238.08 per acre or \$10.30 per acre each year since the trees were planted.

Estimates were made of the product of but one locust grove. This grove had not been seriously damaged by borers and the trees had grown under favorable conditions. The number of posts produced per acre was 3,560, 90 per cent. of which was first-class, valued at \$341.76 per acre, of \$17.98 per acre, per year, the grove being 19 years old.

Bulletin 158 of the Ohio Experiment Station gives a full report of the investigation of these groves, together with a discussion of the merits and demerits of the catalpa, locust, Osage Orange and mulberry for post production, and cultural suggestion for growing them.

Get the Best



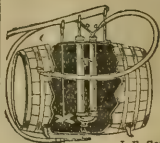
A Good Spray Pump earns big profits and lasts for years.

THE ECLIPSE

Is a good pump. As practical fruit growers were using the common sprayers in our own orchards—found their defects and then invented The Eclipse. Its success practically forced us into manufacturing on a large scale. You take no chances. We have done all the experimenting.

Large fully illustrated Catalogue and Treatise on Spraying—FREE.

DORRILL & MORLEY, Benton Harbor, Mich.



Defender Sprayer

All brass, easiest working, most powerful, automatic mixer, expansion valves, double strainer. Catalogue of Pumps and Treatise on Spraying free. AGENTS WANTED.

J. F. Gaylord, Box 25 Catalpa, N. Y.

The "Kant-Klog" Sprayer

Something New. Gets twice therewith with same labor and fuel. All sizes. Flat or round spray from same nozzle. For trees, vines, vegetables, whitewashing, disinfecting, roguing, fire, etc., etc.

Agents Wanted. Circular free.

Rochester Spray Pump Co., 21 East Ave., Rochester, N. Y.

ARTESIAN WELL Contractors.

DEEP WELL DRILLING a specialty. Estimates made free of charge in all localities. If you want any work done write M. S. SCHAILL, Michaux, Va.

B-B FENCE STAYS

Beats all Farm Fence at your price. Address B. B. FENCE CO., Box 60, Peru, Ind.



LAWN FENCE

Many designs. Cheap as wood. 32 page Catalogue free. Special Prices to Contractors and Dealers. Address COILING SPRING FENCE CO., Box Q Winchester, Ind.

CONCRETE BUILDING BLOCK MACHINE.

Build your new House or Barn of SUCCESS HOLLOW CONCRETE BLOCKS. Cheaper than wood or brick; handsome and more durable. Made only on Success Block Machine. Also Cement Post machine. Catalogue and price list free.

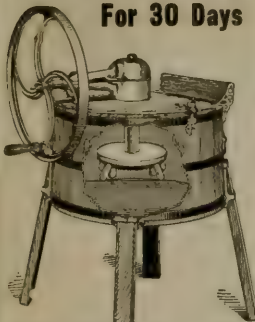
HERCULES MFG. CO., Dept. A-102, Centerville, Iowa.



Krauser's Liquid Extract of Smoke

Smokes most perfectly in a few hours. Made from hickory and Delicious flavor. Clear, clean and smokeless. Meets all for a room. E. KRAUSER & CO.

A Washing Machine FREE For 30 Days



Here's a chance for any woman to get away from the washboard forever. Simply drop us a postal card, asking for a Spotless Washer, and we will send you one on trial, for 30 days. It will cost you only a penny. We even pay the freight. If you don't like it, it doesn't do the wash quicker, better and with less labor than any other machine, tell us so, and we'll pay the freight back. If you do like it, we will make terms of payment on such easy installments that anyone can buy it. There are no strings to this offer. It's a square deal. We make it, because we know that the

SPOTLESS WASHER

is the best machine made. It does most of the work itself. You only have to guide it, and you can do this sitting or standing. Operates in either direction. Made of finest selected Virginia White cedar. Steam tight—never comes loose. Mechanism all enclosed—no danger of hands or clothing being caught. Ball bearing—lightest running.

Send today for full particulars of this remarkable offer and our proposition.

SPOTLESS COMPANY, Inc.

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89 E New York, N.Y. 64 E Richmond, Va.

Paint without Oil

Remarkable Discovery that Cuts Down the Cost of Paint Seventy-Five Per Cent.

A Free Trial Package and a Big Book Telling All About Paints and Paint-Making are Mailed Free to Everybody Who Writes.

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powderpaint. It comes to you a dry powder and all that is required is cold water to make a paint weatherproof, fireproof and as durable as oil paint. It adheres to any surface, wood, stone or brick, it spreads and looks like oil paint and yet only costs one-fourth as much. For many purposes it is much better than oil paint and is indispensable to every property owner.

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WHO STOLE THE BUTTON?

A farmer owned a herd of milk cows that yielded him an average of 400 pounds (about 200 quarts) of milk per day. It was average milk, being 4 per cent. butter fat. In other words, the 400 pounds of milk his cows gave him daily contained sixteen pounds of butter fat. This farmer had had his milk tested, and knew it contained that amount of butter fat. He churned every three days and knew the cream from three days' milk should yield 48 pounds of unsalted butter. But it didn't. Instead of getting 48 pounds, he rarely got more than 25 or 26.

Who was getting that cream? His wife thought somebody might be stealing it, so he put a lock on the milk house door. That didn't help matters any. He was puzzled. He had a first class milk house, used the best system of deep setting, and couldn't see where that cream went. He let his milk stand until almost sour before he skimmed it, thinking it might cream better. But that didn't mend matters any—simply spoiled the skimmed milk for calf feed. Up to that time he had thought he had a perfect system of skimming. But he knew that 48 pounds of butter fat was there, because he had had his milk tested; but he could not make as much butter as he should.

He grew suspicious of his cans. It seemed to him that something was wrong with his cans. He asked his hardware dealer about it. This was the answer he got: "Look down your calves' throats." He asked the hardware man what he meant. The hardware man replied, "You have been robbing yourself—been feeding about half of your butter fat in your skimmed milk. Your cans are good enough, as cans go—but cans don't do the business. They depend altogether on the force of gravity to do the skimming, and gravity is not strong enough. Half of the butter fat remnant tangled up in the skimmed milk, and it takes a force a whole lot stronger than gravity to get it out."

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A. E. Lewis. ”

What Mr. Lewis says about the value of the telephone in the Farm Home is seconded by all farmers after they have once enjoyed the privilege of telephone service.

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These leaflets and illustrations are first published in Bird-Lore, the organ of the Societies, and all teachers subscribing to this magazine will receive, free of charge, two extra copies of each leaflet, two colored plates, and six outline drawings on application to the National Association of Audubon Societies at 141 Broadway, New York City. Additional copies may be had at cost.

Lippincott's Magazine for February opens with a novelette by Jeanette Lee called “One Way of Love.” This is a clever interpretation of a man's life, and possesses a singularly clinging charm. The lucid directness of style fits well its sincere characterization of New England people whose inheritance is that of brains, not money. When the man meets with a disappointment at the outset of his career, the scales dip so far, weighted by his grief, that it seems as if he must go under. But an older man's experience and advice save him. The real action of this absorbing story is placed in Chicago, where the man adopts newspaper work, and there he finds the woman who becomes his inspiration.

Leading the shorter fiction of the month is “In the Strong Man's Borders,” by Frank Saville. It is a thrilling romance of the rescue of a girl from a fate worse than death. The story of a plucky newsboy is told by Walt Makee under the title, “The Initiative of Pokes.” An amusing satire on “nerves” is that by Adele Marie Shaw, “Katharine and the Sanatorium.” The institution described is purely hypothetical, and exaggerated so as to be excruciatingly funny. Ella Middleton Tybout's contribution, “The Methods of Josephine,” may be called a vicarious elopement. “Petruchio in Plainsville,” by Birdsall Jackson, is both humorous and penetrating. An American girl's lively adventure in Paris is entitled “Aline and the Enemy.” An amusing little skit on “The Lesser Virtues” is “By One Who Has Abandoned Them.”

A paper of seasonable interest is on “Early Opera in America,” by Rufus Rockwell Wilson; and an agreeable Italian sketch, “An-Umbrian Idyll,” is

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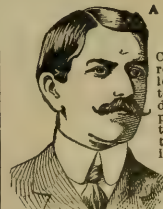
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No. 75.—Contains 60 acres of Good, Land Fronting on McAdam's Pike, Land a little rolling, but covered level, well fenced, and 2 acres in timber, 23 Miles from Washington. Thrifty young orchard, apples, peach and pear, good 6 room house. Stable and other out houses all in good repair, 1-4 mile from store, P. O., mill and shops, in elegant neighborhood. Price \$1,250.

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W. E. MILLER, Herndon, Va.

by Annie Hollingsworth Wharton. This is a chapter from her forthcoming volume on foreign travel.

SOUTHERN POETS.

Mary Washington.

(13th and last article.)

John Esten Cooke, although more widely known as a novelist, had also, to some little extent, a poetic vein, and a very good one, as is frequently the case with novelists. For instance, there is Bulwer, whose "Dead Volets" and many other poems entitled him to an honorable rank amongst English poets. Dickens and Thackeray also wrote occasional poems, the latter proving himself, I think, the better poet of the two, as evinced by his charming little poem on the subject of a swain awaiting his lady love at the Church door:

"Although I enter not
Yet round about the spot
Sometimes I hover,
And at the sacred gate,
With longing eyes I wait.
Expectant of her," etc.

Also, his noble lines to youths entering on their career—

"But if you win or if you fail,
Be each, pray God, a gentleman."

But, to return to Cooke. He was born at Winchester, Va., in 1830. His father was a distinguished lawyer, who moved to Richmond to practice in the Court of Appeals while John Esten was still a small boy. The latter also studied law as he grew up, was admitted to the bar and practiced four years when he quitted this profession to devote himself to literature. When the war broke out, he threw aside the pen for the sword, serving under Stuart and Jackson. At its termination, he resumed writing, for which he had laid up a rich store of materials in the field and the camp. He died September 27, 1886.

I subjoin his beautiful poem.

"The Band in the Pine Wood."

Oh band in the pine wood cease,
Cease with your splendid call,
The living are brave and noble.
But the dead were bravest of all.

They throng to the martial summons,
The loud, triumphant strain,
And the dear, bright eyes of long dead friends
Speak to the heart again.

They come with the ringing bugle
And the deep drum's mellow roar.
And the soul grows faint with longing
For the hands that will clasp no more.

Oh band in the pine wood cease,
Or the heart will melt in tears
For the gallant eyes and smiling lips
And voices of old years.

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56th Annual Statement
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New England, and the Largest in
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Insurance.

Assets, Jan. 1, 1906...	\$79,247,504.32
Premium receipts in 1905	13,728,619.61
Interest and other receipts in 1905.....	3,231,850.90
Total receipts in 1905.....	16,960,470.51
Payments to policy holders in 1905.....	7,766,186.17
Legal reserve on policies, and all claims.....	69,956,781.51
Special reserve in addition to reserve above given.....	2,215,316.00
Life insurance issued, revived and paid for in 1905.....	30,277,698.00
Life insurance in force Jan. 1, 1906.....	250,858,315.00
Guarantee fund in excess of requirements by Company's standard.....	7,075,406.81
Guarantee fund in excess of legal requirements.....	9,290,722.81
Paid Policy Holders Since Organization	\$153,700,407.33.

Gains in Business During 1905.

Increase in Assets.....	\$5,551,325.51
Increase in guarantee fund over requirements.....	519,766.16
Increase in premium income.....	859,696.84
Increase in total income.....	1,028,913.75
Increase in life insurance in force.....	13,553,576.00
Increase in accident insurance in force.....	7,861,854.00

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MEIGS & HEISSE, Managers, German and Calvert streets, S. W., Baltimore, Md.

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Mention The Southern Planter.

John Esten Cooke had a brother of a finer poetic vein than his own. I refer to Philip Pendleton Cooke, author of the widely-read and much-admired poem entitled "Florence Vane," pronounced by Blackwood's Magazine "the most exquisite poetical gem that ever came out of America," and which has been translated into half a dozen languages.

Philip Cooke was born at Martinsburg, Va., 1816. At fifteen he was an athlete at Princeton, where he was especially distinguished for his proficiency in outdoor sports. At seventeen, he became a contributor to the Knickerbocker Magazine, and later to the "Southern Literary Messenger." He was admitted to the bar at Winchester, Va. He died in 1849 from pneumonia contracted from hunting in severe weather. He was the author of "Froissart Ballads and other Poems." (1897), but his best known lyric is "Florence Vane," of which I subjoin a copy—

"Florence Vane."

I loved thee long and dearly,
Florence Vane,
My life's bright dream and early
Hath come again.
I renew in my fond vision
My heart's dear pain,
My hope and thy derision,
Florence Vane.

The ruin old and hoary,
The ruin old,
Where thou didst hark my story,
At even told.
That spot—the hues Elysion
Of sky and plain,
I treasure in my vision,
Florence Vane.

Thou wert lovelier than the roses
In their prime,
Thy voice excelled the closes
Of sweetest rhyme.
Thy heart was a river
Without a main,
Would I had loved thee never,
Florence Vane.

But fairest, coldest wonder
Thy glorious clay,
Lieth the green sod under,
Alas, the day!
And it boots not to remember
Thy disdain,
To quicken love's pale ember,
Florence Vane.

The lilies of the valley
By young graves weep
The pansies love to dally
Where maidens sleep.
May their bloom in beauty vying
Never wane
Where thine earthly part is lying,
Florence Vane.

Dr. John Dickson Bruns was born in Charleston, S. C. in 1836. He was educated at the Charleston College,



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and in his junior year took a prize in composition and elocution. In his senior year (1854) he graduated with the first honors and took the gold medal for oration. He then studied medicine, in which he graduated in 1857, and became eminent in his profession. He was a man of varied gifts—a fine scholar, a man of great culture, both in English and Latin classics, an able writer on professional subjects and also a good poet. He wrote a large number of lyrics and a good many occasional poems. He was editor of the Charleston Journal from 1859 till the beginning of the war. After the war he became professor of physiology and pathology in New Orleans.

I subjoin a few stanzas from Dr. Brun's poem on Schiller, in which he refers to the latter's celebrated poem on the bell—

And while the magic pictures pass,
I scarce can bear the swell
Of rapture, when I hear afar
Thy many languaged bell.
Its merry music ushers in
Bright childhood's golden morning.
And floats in heaven-born notes away,
As though all Earth 'twere scoring.

And oh with what a human woe
Its silver tones are rife,
When passing from her father's door,
The bride becomes a wife.
It consecrates through all her days
Lives holiest emotions,
And rings each sacred Sabbath in
With call to pure devotions.

It clangs with force and fury when
The happy homestead's burning.
And mourns with solemn plaint the
sire
To his long home returning.
And when all men in brotherhood
Of heartfelt concord stand,
It shouts the angels' song of peace
And good will through the land.

God send it long to ring with these
Sweet messages of love,
And lift our earth-stained souls from
strife.

To His blest calm above.
To that ideal land where faith's
Eternal fountain springs.
And standing by her native palms,
Peace folds her shining wings.

We observe in the recent book reviews and catalogues very favorable notices of a young Southern poet who has recently come to the front, Edward Uffington Valentine, of Baltimore. He has recently published "The Ship of Silence and other Poems," a volume containing 59 poems, which have met with high commendation. Harper's Weekly spoke of this volume in the following terms: "If America can furnish us with such poets as Mr. Edward U. Valentine, we have nothing to despair of in our defence of art and literature. While we

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Bouquet of Gold, golden yellow.

SPECIAL BARGAINS

6 Carnations, the "Divine Flower," all colors, 25c.
8 Prize-Winning Chrysanthemums, 25c.
4 Beautiful Gladioli, 25c.
4 Grand Orchid Cannas, 25c.
4 Sweet-Scented Tuberoses, 25c.
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10 Lovely Gladioli, 25c.
10 Superb Pansy Plants, 25c.
15 Pink Flower Seeds, all different, 25c.

Any Five Collections for One Dollar, Post-Paid. Guarantee satisfaction. Once a customer, always one. Catalog Free.

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YELLOW SOJA BEANS.

Home grown for several years, for sale in any quantity desired up to 500 bushels. Average yield last year, 3 tons hay and about 30 bushels seed per acre. Can be cut with mower and threshed with wheat; the best, most nutritious and prolific legume for eastern Virginia. For prices apply to WM. C. STUBBS, Valley Front Farm, Sassafras, Gloucester Co., Va.

Virginia

Ensilage Seed Corn

for sale at \$1 per bu. or 90c. per bu. for 10 bu. or over.

This is a very superior corn for ensilage and fodder purposes, as it produces a large growth of fodder as well as an excellent crop of ears.—J. G. MARTIN, Coveville, Va.

5c for 50c. worth of leading 1906 Novelties in Choice Garden Seeds. \$2's worth of Universal Premium Coupons free with every order. BOLDING'S SEED STORE, Baltimore.

Wood's Seeds.

Alfalfa Seed INOCULATED Ready For Sowing.

Inoculation makes it possible to grow Alfalfa where it could not be grown before.

It supplies the bacteria necessary for the best growth and development of this valuable crop.

Alfalfa once well established lasts for years, yielding large and continuous cuttings of the best and most nutritious hay. Price of seed quoted on request.

Wood's 1906 Seed Book tells all about Inoculated Seeds, both for the Garden and Farm. Mailed free. Write for it.

**T. W. Wood & Sons, Seedsmen,
RICHMOND, - VIRGINIA.**

We can also supply Inoculated Garden Peas, Snap Beans, Clovers, Cow Peas, etc. Write for prices.

SEED POTATOES!

Second crop "EXTRA EARLY SUNLIGHT" seed potatoes, grown especially for seed.

This potato is more extensively grown in this section, than all other varieties combined. We ship from here yearly, from 50 to 75 thousand bbls. In productiveness and earliness, it surpasses all other varieties. It is white, similar to the Rose in shape and most excellent for cooking. It produced more than 100 bbls. No. 1 potatoes to the acre last year, when allowed to mature. They always bring from 25c. to 50c. more per bbl. than other varieties on home and Northern markets.

I have for sale several 100 bbls. choice stock.

No. 1 stock in bbls. \$3.25. No. 2 stock in bbls. \$2.25, f. o. b. here.

Order early as supply may be exhausted. Address: BRANCH MARTIN, Toano, Va.

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We sell the best grade of Gardens, Field and Flower Seeds and Bulbs, that money will buy. We are recleaners of Clover, Timothy, Red Top, Blue Grass, Mammoth White Ryegrass, Bareless Harley Seed Wheat and a full line of Farm Seeds. Write for Catalog and Field Seed Price List FREE.

THE HENRY PHILLIPS SEED & IMPLEMENT CO.
115-117 St. Clair St., Toledo, Ohio.

ROSES! ROSES! ROSES!

Cold Grown, Own Roots, Ever-Blooming Roses

and the best of ALL STANDARD sorts, including RUNNERS, Catalogue, 25c., containing FULLEST DIRECTIONS for ROSE CULTURE, and alone well worth the money. FREE TO CUSTOMERS. Catalogue contains coupon for 25c. good for that amount of ANY PURCHASE. GOOD ROSES, from \$1.00 per dozen up. MERIT ROSE COMPANY, RICHMOND, VA.

have a poet who can write such an ode as that to "Christopher Marlowe," the sonnet on Keats and Chatterton, his lines on "Helen" and "The Last Shot," we need not look to England for our best masters in verse, for in any one of these poems, Mr. Valentine is the equal of Mr. William Watson. Indeed, there are times when I prefer Mr. Valentine to the English poet."

We also see notices of a new volume of verse from Frank L. Stanton, the Georgia poet, "Songs from Dixie Land."

Mr. Stanton is connected with the "Atlanta Constitution" and his work is well and favorably known. The Nashville American says of him: "With the play of his humor, tenderness of his pathos and the buoyant faith of his optimism, he has touched many a heart." The Chicago Times-Herald says: "His book is filled with a happy insight into the human heart."

His first volume of poems ("Comes One with a Song") attained great popularity and ran through four editions. James Whitcombe Riley paid Stanton a high tribute in the following lines:

"He sings and his song is heard
Pure as a joyous prayer,
Because he sings of the simple things,
The field and the open air,
The orchard bough and the mocking bird,
And the blossoms every where."

Amongst Southern poets who are entitled to honorable recognition, I may mention Mr. Charles Washington Coleman, of Williamsburg, Va., a young man whose poems have been of a sufficiently high stamp to be published in "The Century" and "Harpers."

I may also mention Capt. W. Gordon McCabe, of Richmond, better known as an educator and as a fine scholar, but who, in earlier years, gave evidence of a beautiful poetic vein. His first cousin, Mr. James McCabe, also showed a poetic and generally literary vein.

I must also mention the Hon. A. C. Gordon, of Staunton, Va., who composed the beautiful and appropriate ode for the unveiling of Ezekiel's monument, at Lexington, Va., to the immortal New Market Brigade June 23, 1903.

Nor have I yet given an exhaustive list of Southern poets. Doubtless, there are some meritorious ones with whose works I am not acquainted, but I believe I may claim that my list includes the cream of Southern poets, and it is such a list as may justly fill Southern readers with pride and delight. And doubtless what has already been accomplished will pave the way to still higher and richer achievement.

TREES.

I offer a fine lot of whole root trees.

**APPLES, PEARS, PEACHES,
CHERRIES, PLUMS, GRAPE VINES,
RASPBERRIES, ETC.**

Save agents' commission by sending your orders to the nursery.

CATALOGUE FREE.

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WERTZ'S NURSERY, SALEM VA.**

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Apple, Pears, Peaches, Plums, Cherries, Blackberries, Raspberries, Currants, Asparagus Roots and Rhubarb; Grapes in assortment; American Ginseng Seed and Roots. Full line of Ornamental Trees, Shrubs, Hedge Plants and Roses. Peach trees grown under contract. Write for prices.
FRED SHOOSMITH, Hays, Pa.

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at reduced prices. Special low prices on EN DAVIS, GANO, JOHNSON'S FINE WINTER, WINESAP apple trees, 4 to 5 ft., March shipment. CONCORD, CLINTON, CATWAB Grape Vines, 2 yrs. old, at a Sacrifice. Agents wanted; write us.—E. W. JONES NURSERY CO., Wadsworth, Va.

OVER TEN MILLION GRAPE VINES

Are annually propagated at Fredonia, N. Y. The soil and climate here are such that better vines are produced than anywhere else, and at less expense. I will mail two sample Vines for 10c. and an interesting and instructive pamphlet (B) free.

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New Home, Cardinal, Commonwealth, Oaks Early, Champion, Glen Mary, Wm. Bell and 91 others. Lucrative and Premo Dewberry. Seeds: Livingston's Globe and Allen's Best Tomato, Allen's First Choice and Rocky Ford Cantaloupe, Allen's Money Maker, Early Fortune and Peninsula Prize Cucumber. Valuable tested novelties and a full line standard garden, field and flower seeds, bulbs, etc. Write for names and free catalogue. J. W. F. ALLEN, Salisbury, Maryland.

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Strawberry plants you would plant them. Try Free Catalogue (tell you about the money maker. My plants are thrifty—well rooted true to name. The Strawberry has been one of my specialties for 30 years, you cannot get better plants anywhere. Second crop seed potatoes Asparagus roots etc. J. W. HALL, Marion Sta., Md.

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Fruit trees, Raspberry, Plants etc. Everything for the Fruit Grower. Send today for free Catalogue.

JOHN LIGHTFOOT
Sherman Heights, Tenn.

Cockes Prolific

SEED CORN for sale. Carefully selected lower ears.—J. M. LEWIS, Wenona, Va.

Cow Peas

for sale. Quality guaranteed and prices lower than seedsmen.—E. M. COLEMAN, Penola, Va.

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tity of phosphate rock mined and sold in 1905 surpassed the production for 1904, the year which, up to that time, had carried the honors for production. The marketed production of 1904 was 530,571 long tons, but that for 1905 probably exceeded 600,000 long tons. The average price obtained for crude rock has been higher than before, and the outlook for Tennessee phosphate is good.

Little change was noted in the situation of phosphate rock mining in South Carolina during the last year. The production in 1905 showed a slight increase over that of 1904.

LOGICAL JURYMAN.

For nearly six hours had the court been convulsed with the evidence given in a sensational action for a breach of promise. The many ridiculous love letters had been read; commented upon, and heartily laughed at; counsel had spoken, the judge had summed up, and the jury had retired to consider their verdict.

"Well, gentlemen," said the foreman, "how much shall we give this young man?"

"Look here," said one of the jurymen, "if I understand aright, the plaintiff doesn't ask damages for blighted affections, or anything of that sort, but only wants to get back what he has spent on presents, holiday trips, etc."

"That is so," agreed the foreman.

"Well, then, I vote that we don't give him a penny," said the other hastily, "if the fun he had with that girl didn't cover the amount he expended, it must have been his own fault. Gentlemen, I courted that girl once myself."

Verdict for the defendant.—Ex.

A NEW ENGLANDER'S OPINION ON VIRGINIA FRUIT AND PROSPECTS.

Mr. A. C. Fernald, of Boston, who has had large and long experience in the fruit trade, writes as follows:

"After returning from a third trip through the State, I could not but feel that Virginia and her people had a glorious future before them. In my travels I have never seen a section where all industries had so fair a prospect before them. Active in the fruit industry of New England, as I have been, and in constant touch with its every phase, the orchards and fruit of Virginia were a revelation to me, as were the mercantile pursuits. I had no idea that the tree could bear the apples and bring them to maturity like the trees I saw in the sections around Winchester, Washington in Rappahanock county, Front Royal, Crozet and Bedford City. The appearance of the fruit, its flavor and the large amount of juice in the apples is simply beyond expression.

A. C. FERNALD."



Pride and Pimples

The woman who "sits back" is generally the woman with pimples or unsightly eruptions. Get in the beauty row by cleaning up the face with

HEISKELL'S OINTMENT

the magic healer of all skin diseases—with a half century record of miraculous cures. Removes ugly blotches, roughness or redness of the skin, and heals all scaly, tettery eruptions. After the cure Heiskell's Soap will keep the skin smooth and fine. Heiskell's Blood and Liver Pills are especially recommended for use with the ointment and soap. They act on the blood.

Ointment 50c a box. Soap 25c a cake. Pills 25c a bottle.

Sold by all druggists or sent by mail.

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Stubborn Skin Diseases.

Dr. C. I. S. Cawthon, Andalusia, Ala., declares "Tetterine is superior to any remedy known to me for eczema and stubborn skin diseases." Many other physicians unite in this testimony. It has accomplished wonders in their practice. It is amazing that any one would suffer with itching, burning skin diseases when relief might be had infallibly from the use of a 50-cent box of Tetterine. Your druggist or by mail from the manufacturer, J. T. Shuptrine, Savannah, Ga. Tetterine Soap, only 25c. cake.

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Write for booklet giving plan and explaining how you can become a member of the . . .

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this securing cheap fire protection. Property insured \$500,000; average cost per \$100 per year, \$5.00. Estimated Security, over \$1,000,000. Memberships and risks limited to Eastern Va. CHAS. N. PRIEN, Gen. Agent, Virginia Division.

CHESTER, VA.

ORGANIZED JANUARY 9, 1909.

FIND OUT YOURSELF.

Don't ask a girl to marry you after dark when she is dressed fit to kill. Call on her, and when you leave inadvertently drop a glove on the piano. Return for it the next morning at nine o'clock. If she comes to the door with one shoe and one slipper on, her hair done up in curl papers, dressed in an old mother Hubbard, our advice is to take to the woods. But if she appears in a neat house dress, her hair done up and a rose in the top of it, grab her.—Marionville (Mo.) Free Press.

THE MOTIVE POWER.

At a prayer meeting in Maine a good old brother stood up and said he was glad to give the following testimony:

"My wife and I," he said, "started in life with hardly a cent in the world. We began at the lowest round of the ladder, but the Lord has been good to us and we have worked up—we have prospered. We bought a little farm and raised good crops. We have a good home and a nice family of children and," he added with much emphasis, "I am the head of that family."

After he sat down his wife promptly arose to corroborate all that he had said. She said that they had started in life with hardly a cent, the Lord had been good to them and they had prospered; they did have a farm and good crops, they did have a fine family of children, but she added with satisfaction, "I am the neck that moves the head."—Boston Herald.

STRANGE STORY OF A BOOK AGENT.

One morning last week a candavorous young man with a valise called at the office of a busy lawyer.

"Mr. Rangle," he said, "can I sell you a history of Menard county?"

"Why, that happens to be the county I was born in," said the lawyer. "What is the book worth?"

"Four dollars a copy."

"I'll take one."

To Mr. Rangle's intense surprise the caller burst into tears.

"What's the matter, young man?" he asked. "Was the shock too great for you?"

"It—it wasn't what I expected!" sobbed the book agent. "I had made a b-bet of five dollars you'd kick me out!"—Buffalo Times.

ONLY AN AMATEUR.

The artist of the family had painted a picture and they grouped around to admire. A piece of fruit resting on a plate, ripe, mellow and golden. They agreed it was a beautiful picture, but could not decide whether it was an apple peach or pear. A colored servant came into the room on a domestic errand and stepping before the picture gazed upon it with awe. Turning to the artist with a look of admiration, she exclaimed: "Lawse, honey, any body kin tell dat's de moon rising."

A. B. W.

IDEAL VIRGINIA HOMES

Some good bargains for immediate purchase, located near steam and electric railroad and near Washington where we have the best of markets.

No. 4.—Fine village farm, 100 acres in the highest state of cultivation; nice 12 room house with porch, cellar and halls; beautiful lawn; large bank, barn and all necessary out buildings; plenty of fruit and berries; the farm is well fenced. This has been used for a dairy farm for 25 years and is being used for that purpose now and is being run very successfully. Only 11 miles from Washington and $\frac{1}{4}$ mile to the steam and electric railroad. Near two mills, churches, schools and stores. This will make a fine investment and a beautiful home. It needs to be seen to be appreciated.

Price, \$1,500 on easy terms.

No. 6.—51 acres; 46 clear; 12 room house, porch around the house, good cellar; nice shady lawn; well at the door; 2 barns and all necessary out buildings; 11 miles from Washington, $\frac{1}{4}$ mile to the steam and electric railroad, same to two mills, schools, churches and stores; the land is in a high state of cultivation; will make a fine dairy farm, it has been used for that purpose. This is a nice home and farm and is well worth the price asked for it.

Price, \$5,000; terms $\frac{1}{2}$ cash, the balance to suit.

No. 21.—100 acres, 90 clear; 7 room old house; good spring nearby; most all kinds of fruit; farm is well fenced; $\frac{3}{4}$ miles from railroad; near schools, churches and stores; 19 miles from Washington.

Price \$1,900 on easy terms.

No. 33.—150 acres, 75 clear, the balance in good timber; old house; plenty of fruit; well watered, and well fenced.

Price, \$1,500. This is a cheap place, the timber will half pay for it.

No. 51.—100 acres, 75 clear, the balance in fine timber; 1-3 mile from the electric railroad and the town of Fairfax. Price, \$40 per acre. This will make nice cheap farm.

No. 53.—769 acres, 500 cleared; 3 houses with from 3 to 9 rooms; 3 barns, one 45x50, one 40x140 and 40x120, and all other necessary out buildings; 3 miles from railroad; 25 miles from Washington. Price, \$35 per acre; 1-3 cash, the balance to suit. This will make a fine stock farm.

No. 90.—280 acres, 200 clear, the balance in white oak timber; nice 10 room colonial house, beautiful, shady lawn, basement; barn 35x50; all necessary out buildings; well watered and good fencing; 2 miles from railroad. Price, \$25 per acre, on easy terms. This will make a fine dairy farm.

No. 138.—567 $\frac{1}{2}$ acres, 100 acres in timber; colonial mansion of 10 rooms and all necessary out buildings; nice young orchard; place well watered and well fenced. Price, \$22.50 per acre; terms, 1-3 cash, the balance to suit. This will make a nice stock farm.

No. 142.—315 acres, 250 clear; good size house, all necessary out buildings, including a 3 room tenant house; plenty of good water and fruit. Price, \$25 per acre; $\frac{1}{2}$ cash, the balance to suit. This will make a fine stock farm.

No. 147.—Fairfax Hotel; 4 story, brick; 23 rooms, including a store and livery stable that are doing a good business; this property occupies a whole square; can be made a very profitable business. Price, \$3,500; terms to suit.

No. 159.—735 acres, 150 in good timber, the balance in a good state of cultivation; 9 room colonial dwelling; 3 tenant houses with from 5 to 7 rooms; stone barn with metal roof, room for 60 head of cattle; 2 frame barns and all necessary out buildings; 4 room dairy (cost \$2,000); the farm is well watered and well fenced; 7 miles from railroad; near school, church and store; 21 miles from Washington. Price, \$30 per acre. This will make a fine stock farm. It is located in a fine farming section.

No. 168.—167 acres, 130 clear, the balance in all kinds of timber; 10 room new house; large barn and all necessary out buildings; plenty of fruit; the farm is well watered and well fenced; land is in a high state of cultivation; $\frac{1}{2}$ mile from railroad, schools, churches and stores. Price, \$1,200, on easy terms. This will make a fine dairy farm; it is being used for that purpose now.

No. 173.—Fine fruit farm; 73 $\frac{1}{2}$ acres; 5 room house and all necessary out buildings; well at the door; 1,500 fruit trees just coming in bearing; place is well fenced. Price, \$3,000. This is a cheap place, as the fruit will pay for it.

No. 196.—350 acres; 75 clear, the balance in fine timber; old house with 5 rooms; well at the door; partly fenced; some fruit; $\frac{3}{4}$ miles from railroad; near schools, churches and stores. Price, \$3,000, on easy terms. This place has about \$1,500 worth of timber, will make a fine investment.

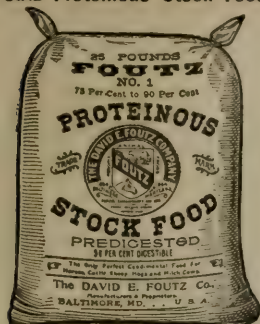
No. 377.—A very fine dairy farm, 4 miles South of Alexandria; $\frac{1}{4}$ mile from electric railroad; 297 acres in the highest state of cultivation; large house, with hot and cold water, steam heat and bath; barn 78x48, with L 22x48, with T 16x80; horse barn 42x30; wagon shed and tool house 68x22; place well watered; farm fenced with 14 gauge wire. This is a fine farm and is paying 10% on the amount asked for the place. This place needs to be seen to be appreciated, and to know what its real value is. If you are looking for a magnificent place, let me show you this property. Price, \$30,000, on easy terms.

It will pay you to get my handsome new catalogue before you buy.

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to contain 75 to 90 per cent. Pure Protein, being 13 times as much as Oats, 15 times as much as corn and more than 5 to 10 times that contained by any advertised condimental Stock Food. It has an actual nutritive value of 5-1/2 times Oats and 6-1/4 times corn. It is the easiest, CHEAPEST, BEST and only absolutely reliable way to balance your animal's rations.

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CLUBBING LIST.

In this list will be found prices on papers, magazines and periodicals which are most called for by our readers. We have club rates with nearly all reputable publications, and will quote them on request:

	Dailies.	With Alone. S. P.
Times-Dispatch, Richmond, Va.	\$6 00 \$6 00
Times-Dispatch (without Sunday)	4 00 4 00
News-Leader, Richmond, Va.	3 00 3 00
The Post, Washington, D. C.	6 00 6 00
The Sun, Baltimore, Md.	3 00 3 40
Thrice a week.		
The World, New York	1 00 1 25
Weeklies.		
Times-Dispatch, Richmond, Va.	1 00 1 25
Central Presbyterian, Richmond, Va.	2 00 2 20
Southern Churchman, Richmond, Va.	2 00 2 25
Harper's Weekly	4 00 4 00
Breeders' Gazette	2 00 1 50
Country Gentleman	1 50 1 75
Hoard's Dairyman	1 00 1 30
Horseman	3 00 3 00

Semi-Monthly.		
Kimball's Dairy Farmer .....	.....	1 00 75
Monthlies.		
The Century .....	.....	4 00 4 25
St. Nicholas .....	.....	3 00 3 25
Lippincott's .....	.....	2 50 2 50
Harper's Magazine .....	.....	4 00 4 00
Harper's Bazaar .....	.....	1 00 1 40
Scribner's .....	.....	3 00 3 25
American .....	.....	1 00 1 35
Cosmopolitan .....	.....	1 00 1 35
Everybody's .....	.....	1 50 1 75
Munsey .....	.....	1 00 1 35
The Strand .....	.....	1 00 1 35
Madame .....	.....	1 00 1 00
Argosy .....	.....	1 00 1 35
Review of Reviews .....	.....	3 00 3 00
Field and Stream .....	.....	1 50 1 50
Women's Home Companion .....	.....	1 00 1 25
Reliable Poultry Journal .....	.....	50 75
Industrious Hen .....	.....	50 70
Poultry Success .....	.....	1 00 75
Blooded Stock .....	.....	50 65
Successful Farming .....	.....	1 00 60
Southern Fruit Grower	50 85
Shepherd's Criterion	50 75
Commercial Poultry	50 75

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PRICE TEN CENTS.

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Your choice of Dixie Giant or Improved Spanish Peanuts (1 qt.), grown by Va.-Carolina Seed Peanut Co., Petersburg, Va. The Dixie Giant is largest and most prolific variety ever produced.

All For Only 1.00

We shall send to any address the Nut Journal 1 year, Peanut Treatise, 1 quart of Choice Seed Peanuts together with the Southern Planter one year, for only \$1.

RENEWALS. If you are now a subscriber to either paper, but wish to take advantage of this offer send the amount and your subscription will be extended one year from date of expiration.

Write at once as offer is limited to April 30th, 1906.

Sample of peanuts and copy of Journal for 10 cts. in stamps.

AMERICAN NUT JOURNAL, Petersburg, Va.



SEWTON'S Hoars, Cough, Dis-
temper and Indigestion Treat-
ment. A veterinary specific for wind,
throat and stomach trouble.
Strongly recommended. \$1.00 per
can. of dealers, or K&P prepaid.
The Newton Kennedy Co.,
Toledo, Ohio.

Purina Poultry Feeds

LITTLE CHICK FEED.

prevents the wasteful percentage of mortality under the average system of feeding. No bowel trouble, no lean, nervous, over-fat, over-heated chicks, resulting in leg weakness, with Purina Feed. Composed of more than a dozen kinds of the purest and most nutritious grains and seeds cleaned and screened, no grit. The best investment you ever made for first six weeks' feeding.

PURINA SCRATCH, PURINA MASH, PURINA ALFALFA MEAL. If your dealer cannot supply you, write.

W. F. RICHARDSON, JR. & CO., Grain & Feed Dealers, 1015 E. Cary St., Richmond, Va., Distributors.

WINTER EGGS.

If you want your hens to lay during the winter months, they must have egg producing feeds. We have them—come to see us.

Alfalfa Clover Meal.....	\$2.00	per 100 lbs.
Valentine's Meat Meal.....	3.00	" "
H. O. Scratch Feed.....	2.00	" "
H. O. Mash Feed.....	2.00	" "
Kaffir Corn.....	1.75	" "
Cracked Peas.....	1.50	" "
Ground Oats.....	1.50	" "
Cracked Corn.....	1.40	" "
Oyster Shell.....	.65	" "
Granite Grits.....	1.00	" "
Conkey's Roup Cure.....	.50	" box.

W. J. TODD, 436 N. 6th St., Richmond, Va.

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Lump Jaw

The first remedy to cure Lump Jaw was

Fleming's Lump Jaw Cure

It remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in

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MAKING COUNTRY HOMES ATTRACTIVE.

Editor Southern Planter:

While sitting round the fireside these long winter evenings, we farmers have much time for thought and reflection. And as I sit thus musing, my thoughts turn to that all important subject to the farmer, how to keep the young people on the farm and make them satisfied with their surroundings. So I have jotted down a few of my thoughts, hoping that they may strike the key note of the situation and may stimulate some brother farmer to greater efforts in this direction.

It is a lamentable fact that our boys from the country crowd to the large cities in search of employment, at wages that hardly pay their expenses, rather than stay on the farm.

There must be a cause for this; do we, as fathers and farmers, do all we can to remedy this state of things?

Did you ever take a drive into the country, in any State you may name in this grand country of ours, and stop at a house for a drink of water? You could not see the house till you got quite to it, on account of the weeds and briars in the yards and fence corners; and as you walked to the house, you had to wade through an immense chip yard, in imminent danger of getting enough fleas to keep you busy for a week to come. You notice several panes of glass out of the windows (for ventilation, of course), and as you step to the door to knock, you are in danger of falling through the porch floor where there is a board rotted away.

It is just dinner time, and as all country people are hospitable, you are invited to sit down and eat. You accept. While it is mid-summer and orchards are loaded with fruit and the gardens are full of good things, you did not have any at this meal, which is composed of salt meat, bread, and probably potatoes, and some wild fruit the children have gathered in the woods.

As you pass into the front room you notice two mottoes, given to these people when they were married by some kind old aunt who had more time than money, and entertained fond hopes that this home would be a model one. One of these mottoes reads, "Ho me, Sweet Home," and the other one is, "God Bless Our Home." Could He bless such a home without performing a miracle?

Some one says, "But, you have overdrawn the average country home." I am glad to say I have, although I have been in just such homes.

Are we doing all in our power to make our homes attractive, and to interest our children in their rural homes? If not, let us begin now to do so. A man does not have to be rich to have a beautiful home. Clean up the fence corners and yards. Paint the house, inside and out. Let the

Warranted to Give Satisfaction.

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Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for Curb, Spint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a Human Remedy for Rheumatism, Sprains, Sore Throat, etc. it is invaluable. Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. If send for descriptive circulars, testimonials, etc. Address

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in this condition. But there's an absolute, permanent cure. For 17 years

99 out of every hundred of the most extreme cases of lumpy jaw have been cured by ONSTAD'S

Lumpy Jaw Capsules

The scientific, speedy cure. Comes in contact with the disease germs. But one application needed for each tumor. No injury. Anybody can apply. A hustling resident agent wanted in every county.

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ABSORBINE

Removes the Inflammation and Bunch. Restores the Circulation in any Bruise or Thickened Tissue, without blistering, removing the hair or laying bare the skin. Pleasant to use, clean and odorless. 50¢ per bottle delivered. Book 12-13 free.

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We are offering eggs for hatching from our yard of
BARRED PLYMOUTH ROCKS.
S. C. BROWN LEGHORNS
S. C. WHITE LEGHORNS.
75c. per 13. \$2.00 per 45 \$1.00 per 100. From

Golden Wyandottes, LIGHT BRAHMAS.

\$1.00 per 15. \$2.50 per 45. \$5.00 per 100. We have stock for sale in any of the above breeds, write for prices. We handle everything in poultry supplies, write us for prices of what you want. Prompt attention to orders.

Our Birds are bred for utility as well as beauty.

Powhatan Poultry Yards,
CHANTILLY, VA.,
J. Harrison Yates Manager.

Hollybrook Farm.

We have an extra fine lot of

Barred PLYMOUTH ROCK Cockerels.

Price, first-class birds, \$1.50; extra select birds, \$2.00 each.

PARTRIDGE WYANDOTTE COCKERELS, from prize winning stock. Price, \$2.00 each for first-class birds; \$2.50 each for extra select birds.

All crated and delivered to express office here. Address, HOLLYBOOK FARM, Box 330, Richmond, Va.



TREVILIAN POULTRY YARDS
HEADQUARTERS FOR
BARRED PLYMOUTH ROCK EGGS
\$1.00 per sitting of 15; 2 settings \$2.75, 3 sittings \$4.00 and \$6.00 per 100.

Yards headed by some world-renowned, prize-winning blood; our matings this season should produce some of the great birds of the breed. We sell A. G. Hawkins' strain and E. B. Thompson's "Ringlets" noted for their massive size and as winter layers. Our stock will improve yours, and our eggs are cheap, quality considered. Cheap eggs from inferior birds mean good money squandered, so write us before buying as we are sure to please you. C. DANNE, Jr. Prop., John Mahanes, Mgr., Trevillian, Va.

FAMOUS "RINGLET"

B. F. ROCKS.

25 CHOICE cockerels @ \$1.50, 20 TIT-TOP cockerels @ \$2.50, "Invincible" WHITE WYANDOTTES, 14 CHOICE, clear-cut cockerels @ \$1.50, 18 EXTRA CHOICE cocks and cockerels, NONE BETTER, @ \$2.50.

ROSE COMB WHITE LEGHORNS, noted "Babcock" strain, 24 EXTRA CHOICE, MAGNIFICENT cocks and cockerels @ \$2.50, 12 cockerels very nearly as good, Beauties @ \$1.50.

A few "PLUMB GOOD" pullets each variety @ \$1.50. Eggs in Season. Reasonable Prices. Scotch Collies also for sale. Satisfaction our motto. Send your orders to-day. "First come, first served."—E. C. NEWTON, Prop., Pee Dee Poultry Farm, Bennettsville, S. C.

BARRED PLYMOUTH ROCK

Eggs, \$1 for sitting of 15. Splendid stock. Fine layers. F. MAXWELL CONNER, Box 516, Richmond, Va.

boys try their hand at it; they cannot learn younger. Fix the girls some flower beds; interest them in the chickens and bees. What boy does not hall with delight any improvement in the live stock of the farm, whether it be a horse or a new cow or pig, or even some thoroughbred chickens? It inspires new energy in taking care of them. A boy is not long in finding out if the next neighbor keeps better stock than "father." So improve yours and create a spirit of friendly rivalry with your neighbor. Rivalry and competition are the spice of trade and improvement.

Furnish the children some good books and papers, suited to their work. Give them the best education you can possibly afford, even if you deny yourself some things you can get along without.

If you are blessed with several boys try and find out in what direction each ones taste for work lies. If one takes handily to the carpenter's tools, get him a few. If another likes blacksmithing, get tools for him, too; and so on, striving to help each one to become efficient in that occupation for which nature fits him. There is no way in which you can better hold the boys than this. You can interest them, and they will take pride in beautifying the home; and these little things they do about the house and farm will bind them to their home with ties that will hold in their memories forever.

Cultivate a taste for music, vocal and instrumental, in both boys and girls. It will keep the boys at home in the evenings. There is nothing nicer than for a family of children to entertain father and mother, their friends and themselves in this way. It will elevate morally and tend to soften and refine their manners. Next to your wife, dress your children as well as your means will allow, so that when they go to the city, they will not be ashamed of their clothes. Many are the bitter thoughts of the country youth from this cause.

Interest the children in nature. Show them how wonderful are God's creatures and works, inspiring to higher, better thoughts.

Provide luxuries for your family. Some one says, "We can't afford it." Do you know that you can raise more and better than the rich man of the city can buy? In this sunny South country you can have your table loaded with good things in the way of fresh fruits and vegetables nearly the whole year around, if you will only plant and tend them. You can also have plenty of fresh meat by keeping a small flock of good sheep or goats, and plenty of poultry; the girls can raise them. With a small amount of labor you can have a fine pond, well stocked with fish.

In many other ways that will suggest themselves from time to time, you can beautify your homes and mould

BELMONT POULTRY FARM.

BREEDER OF HIGH-CLASS

BARRED and WHITE PLYMOUTH ROCKS and WHITE WYANDOTTES.

Eggs: \$1.50 for 15; \$2.50 for 30.

S. C. WHITE LEGHORNS, Blanchard and Wyckoff strains; Eggs from best pen \$1.50 per 15; Second, \$1 for 15. S. C. BROWN LEGHORNS, Whitman strain, \$1.00 for 15. Will spare a few sittings from our 240 egg strain of S. C. Brown Leghorn, mated to produce exhibition males, at \$2.50 for 15. Satisfaction guaranteed.—H. G. ROBERTS, Prop. Roanoke, Va.



Valley Farm

BARRED ROCKS S. C. B. LEGHORNS (Forsyth Strain).

Eggs for sale.

Prices right.

CHAS. C. WINE, Mt. Sidney, Va.

BARRED

PLYMOUTH ROCKS.

AS GOOD AS THE BEST.

25 pullets for sale at \$1. each or \$5.50 for 6 or \$10.00 for 12 or \$21. for all. Eggs \$1. per 15. \$1.75 per 30 or \$5. per 100. Satisfaction Guaranteed. A. J. S. DIEHL, Port Republic, Va.

BARRED

Plymouth Rocks.

BRED FOR UTILITY AND BEAUTY.

Eggs \$1.00 per 15; \$2.50 per 45.—OTTER PEAK POULTRY YARDS, G. D. Wingfield, Prop., Bedford City, Va.

BRIGHT'S

Barred Plymouth Rocks

My specialty. Fine as silk; best blood in America. 15 Eggs \$1.00.

6 well bred young cockerels \$1.00 each. Mammoth Bronze Turkeys, 13 eggs, \$3.00. V. P. I. BERKSHIRE PIGS, 2 mos. old, \$4.00 each.—PINE HILL POULTRY YARDS, F. B. Watson, Jr., Prop., Chatham, Virginia.

FLINT RIDGE POULTRY YARD

Breeder of BARRED and WHITE PLYMOUTH ROCKS, S. C. WHITE LEGHORN REDS, BUFF ORPINGTONS, SILVER LACED and WHITE WYANDOTTES, BUFF, WHITE and BROWN LEGHORNS, CORNISH INDIAN GAMES and BLACK MINORCAS. EGGS AND STOCK FOR SALE. C. E. BEAVER, Prop., Eufla, N. C. R. F. D. 1.

Clairmont Poultry Farm

Eggs—\$1.00 for 15.

BARRED PLYMOUTH ROCKS. SINGLE COMB BROWN LEGHORNS. Best blood for little money. Bright and Bltmore strains. Prompt attention. MRS. JNO. F. PAYNE, Charlottesville, Va.

"AMERICAN BEAUTY" STRAIN

Barred Plymouth Rocks.

Farm raised stock. Eggs, \$2 per sitting of 15. Order early.—FARKIN SCOTT Ashland, Va.

EGGS FOR HATCHING

B. P. Rocks, S. C. Brown Leghorns. Our birds are directly bred from lat prize winners at N. Y., Boston, Phila., Pan American, Chicago, St. Louis and leading southern shows.

Eggs from Exhibition matings \$2 per 15; \$10 per 100. Eggs from Utility matings \$1 per 15; \$6 per 100. Two-thirds hatch guaranteed or sitting duplicated at half price.

Our business is growing! why? because we started with the best stock money could buy and have pleased our customers. Why not let us start you right with a setting or two of eggs. Hatch your winners now for next fall shows.

We breed only the best and use the double mating. **STRAWBERRY HILL POULTRY YDS.**, Box 287, Richmond, Va., Breeding yds. 4 miles from City on C. & O.

BEST STOCK. FARMERS PRICES.

White P. Rocks. S. C. Brown and Buff Leghorns.

Bred from prize winning strains, and great layers.

Double your egg production by feeding "GRANULATED MILK" 45 per cent. Albumen. Save the little ones by feeding "BABY CHICK FOOD." Booklet fully describing these and other supplies and remedies free. J. N. COFFMANN, manager, Edinburg, Va.

BARRED PLYMOUTH ROCK

Eggs, Hawkins, Miles, McClave and Thompson strains. Eggs from high scoring birds at \$1.00 for fifteen straight.

PEKIN DUCK EGGS, from choice birds, \$1.00 for thirteen.—LESLIE D. KLINE, Vaucluse, Va.

BARRED ROCKS

Best strains. New blood annually. Barred to skin, fine size and bred to lay. No other breed on farm. Eggs 15 for 75c; \$4 per hundred. Securely packed and delivered by express office in Bedford City, Va.—Mrs. WM. P. BURKS, Route No. 1, Bedford City, Va.

"Money in Poultry."

Our new 1906 book tells how to make it. Tells how to treat diseases. Feed and care for poultry successfully. Illustrates and tells all about 40 varieties FAMOUS THOROUGHBRED FOWLS, with Low price on stock and eggs. Send 6c. in stamps to JOHN E. HEATWOLE, Box L, Harrisonburg, Va.

EGGS FOR HATCHING.

BARRED, BUFF and WHITE PLYMOUTH ROCKS; SILVER, WHITE, BUFF and PARTRIDGE WYANDOTTES; BLACK MINORCA; BLACK LAGHANS; LIGHT BRAHMA; PARTRIDGE COCHINS; WHITE and BROWN LEGHORNS.

Price, \$1 for 15; \$5 per 100; 2-3 hatch guaranteed.

A few more nice White and Brown Leghorns and some nice Cockerels of the different breeds for sale.—OAKLAND POULTRY FARM, C. J. WARNER, Manager, Ruffin, N. C.

Barred Plymouth Rocks

exclusively; strong, healthy, vigorous farm raised, bred for laying. 75c. for 15 eggs. WM. B. LEWIS, Irby, Nottoway Co., Va.

your children's characters in that which is pure and noble, until they grow into manhood and womanhood, and they will regard home as the brightest and best place on earth. Then we can say with faith and certainty, "God Bless Our Home," for "God helps those who help themselves." Try to set a good example before the boys. Be careful in your habits. Make father a model for them to follow. They will surely follow in your footsteps. Teach them to love, honor, obey and help their mother and sisters, to be obliging to ladies, and manly and true among men.

In short, anything you can do for the improvement of your home and the betterment of your family will not only help them, but will improve your own nature, developing a nobler manhood in you. And as you grow older, you will not lack for help and support; and in the eve of life you can look back over your life and say truthfully, "I have done my duty by my children, and the world is better for my having lived in it."

CHARLES L. DEWEY,
Mississippi.

SERMON OF THE STOVE.

"De preacher wuzn't feelin' good las' meetin' day an' he made de stove preach de sermon."

"Made de stove preach?"

"Yes—made it red hot fum top ter bottom, an' den tol' de sinners ter take a good look at it, an' go ter thinkin'!"—Atlanta Constitution.

THE PARSON EXPLAINED.

A Scots minister had forgotten to bring his manuscript to the church, and on going into the pulpit gave his congregation this explanation: "I am very sorry, my friends, to have to tell you that I have mislaid my manuscript. I must, therefore, this morning just say to you what the Lord has put into my mouth, but I trust I shall come this afternoon better provided."—Tatler.

THE UNION FOREVER!

Lady—"But you promised to cut some wood."

Weary—"Ma'am, I told you I was a union man, an' I jest noticed dat ax was made by a factory wot employs non-union labor."

TAKEN AT HER WORD.

"Did you tell the reporter that your engagement was a secret?"

"Yes; and the horrid thing never put it in the paper at all."

MERCENARY.

"Is marriage a failure?"

"You can never tell till you've seen the wedding presents."—Cleveland Leader.

**POULTRY BARGAINS**

FOR MARCH ONLY.

30 S. C. Brown Leghorn Pullets and Yearling Hens, Choice Birds, @ \$15.00 dozen.

10 Select S. C. Brown Leghorn Cockerels @ \$1.50 to \$2.50 each.

20 Choice S. C. White Leghorn Pullets and Hens @ \$15.00 dozen.

10 Choice S. C. White Leghorn Cockerels @ \$1.50 to \$2.00 each.

5 Exhibition Partridge Wyandotte Pullets, Wyckoff's Birds direct, @ \$2.00 each, worth \$5.00 each; also, 3 Fancy Cockerels of the same breeding, @ \$2.00 each.

10 Choice White Wyandotte Cockerels, Duston Strain, @ \$2.00 each, or \$15.00 for the lot of 10, if taken immediately.

20 S. C. Rhode Island Reds, male and female, @ \$20.00 per dozen.

10 Choice Partridge Cochins Pullets and Hens; also, Cockerels, @ \$2.00 each.

5 Extra quality White Wyandotte 8

5 Extra quality S. C. Buff Orpington pound Cockerels \$3.00 each.

Cockerels @ \$3.00 each; Pullets, @ \$2.50 each.

25 Choice Barred Rocks, Pullets and Yearling Hens @ \$2.00 each; \$20.00 dozen. Also, White Plymouth Rocks, Buff Rocks, Black Minorcas, and many others.

5 Silver-Spangled Hamburg Pullets @ \$2.00 each, if taken quick.

EGGS OF ALL THE ABOVE KINDS FOR HATCHING @ \$1.50 per 15, except Partridge Wyandottes, Hamburgs and S. C. Buff Orpingtons, which are \$2.00 per 15. In lots of 100 or more, \$3.00 per 100, and fertility guaranteed.

ONLY A FEW MORE WHITE HOLLAND and BRONZE TURKEYS FOR SALE. 14-pound Bronze Hens @ \$4.50 each; 1 35 to 40 pound Yearling Bronze Tom, \$7.50; 3 22 to 24 pound Young Bronze Toms @ \$8.00 each; 4 12 to 14 pound White Holland Hen Turkeys @ \$4.00 each; 3 Choice White Holland Toms, weight, 20 pounds or more, @ \$5.50 each.

Eggs of either breed @ \$4.00 per dozen, or 40 cents each. Send orders quick, since only limited quantities are for sale.

A few trios of Exhibition White Cochins Bantams @ \$5.00 trio, or \$2.00 single bird.

Pekin and Rouen Duck Eggs in any quantity desired, prices as follows: \$1.50 per dozen; \$5.00 per 100; \$70.00 per 1,000, and from the best and largest strains.

Pure-bred Poland China, Berkshire and Chester White Pigs, all ages, strictly first class and eligible to registry.

Service Boars and Bred Sows a specialty, and always on hand.

Pure bred Shropshire and Southdown Sheep, from Imported Ancestry, and of the finest individuality They will please any one, since they are bred right in every particular. Write for prices and full particulars.

Do not forget to engage a dozen eggs from my \$175.00 Pen of S. C. Prize Winning Brown Leghorns. Money can buy no better, and the price is only \$5.00 per dozen.

Send orders promptly for Turkeys and Chickens, quoted above, or you will be too late. Address, JAMES M. HOBBS, 1521 Mount Royal Avenue, Baltimore, Md.





WHITE Plymouth Rocks Wyandottes S. C. Buff Leghorns AND Pekin Ducks.

If you want quality, give me your orders for Eggs for hatching, and I will guarantee satisfaction. My stock is second to none and bred for UTILITY as well as for SHOW. EGGS: \$1.50 for 15; \$2.50 for 30; Pekin Duck Eggs, \$1 for 9.
SOME CHOICE COCKERELS FOR SALE AT BARGAIN PRICES. W. O. RONDA-BUSH, Uno, Va.

Eggs for Sale

B. P. ROCKS, Thompson Strain, WHITE WYANDOTTES, Fitch Strain, S. C. BUFF ORPINGTONS, Cook Strain, S. C. White and Brown Leghorns. 15 Eggs for \$1. PEKIN DUCK Eggs, 12 for \$1. Indian Runner Duck Eggs, 12 for \$1.50.—JAMES M. CASSELL, Wytheville, Va.

BARRED PLYMOUTH ROCKS.

Strong healthy farm raised birds for sale at all seasons. Cockerels, \$1 to \$1.50; Pullets, \$1.25. BARRED P. ROCK and PEKIN DUCK Eggs, \$1 for 15; 2 sittings, \$1.50; and Pure MAMMOTH BRONZE turkey eggs in season.—MRS. R. E. WILHOIT, Somerset, Va.

ALTA VISTA POULTRY YARDS.

BARRED PLYMOUTH ROCKS (Thompson Strain), BUFF WYANDOTTES (Sanborn and Novena Strains), MAMMOTH BRONZE TURKEYS.

Strictly fresh eggs for sale from the above fowls. Write for prices.—MRS. R. B. FRAY, Advance Mills, Albemarle Co., Va.

STRICTLY FRESH EGGS for Hatching.

Barred Plymouth Rocks

16 years line bred beautifully barred large size, bred-to-lay kind. Eggs \$1.00 per 15; \$1.50 for 30; \$4.50 for 100. Guaranteed fresh, large per cent. fertile, none shipped over 3 days old. MAMMOTH BRONZE TURKEYS correct in plumage, large bone, eggs \$3.00 Dozen.

E. F. SOMMERS, Somerset, Va.



WHITE PLYMOUTH ROCK

Eggs for Hatching. F. S. KILBUR, "The Pines", F. D. 2, Rockville, Md.

HEAR 'EM CRACK!

Strong, vigorous eggs hatch like pop-corn. Get eggs from my "Quality" Barred Rocks. Finest shows birds and layers. Eggs \$2.00 and \$1.50 per 15.—L. W. WALSH, Drawer 243, Lynchburg, Va.

The above illustration is interesting because it represents a condition that is fast approaching—has even now arrived in many sections. Before many years, these steam plowing outfits will be seen not only on the vast grain growing ranches of the far West, but also on the farms of average and less than average size.

A number of large manufacturers are actively engaged in working on this problem. One of these—the Avery Mfg. Co., Peoria, Ill.—seems to have the solution well in hand. Their steam ploughing outfit, as lately exhibited at a public trial near Peoria, leaves little to be desired. Our illustration is from a photograph of the Avery outfit at work on that occasion. Large crowds of farmers from far and near attended this exhibition and all were delighted at the almost marvellous results attained.

A 22 H. P. engine was attached to the new Avery steam plow, pulling ten 14 inch plows. An acre was easily covered in twenty minutes, and it was agreed on all hands that under favorable conditions, the entire expenses of ploughing could be brought considerably under 50 cents an acre. The test covered all sorts of conditions. Up and down, over steep grades, the furrows were nicely turned. At the time of the exhibition, the ground was so dry that ordinary gang plows could not be used at all.

Any one desiring further details in regard to this new method of ploughing and its advantages, should write to the Avery Mfg. Co., Peoria, Ill., who will be glad to go into particulars.

ADJOINING CITIES AND TOWNS TO NAME THEIR TREES.

The Forest Service Will Identify Trees in Streets and Parks.

The increased interest in forests and forest trees which is a sign of the times has, among other things, led many city and town officials to seek to make known the names of the trees growing in streets and parks. Not only are such trees in very many cases now without marks of identification, but in not a few cases they have been labeled with incorrect names. The Forest Service has devised plans by which its co-operation may be secured in correctly identify-

ARE YOU LOOKING FOR PRIZE WINNERS
IN

**S. C. Rhode Island Reds,
Light Brahmas,
Barred, Buff and White
Plymouth Rocks,
S. C. White Minorcas
and S. C. White Leghorns?**
Then order your eggs for hatching from
The Oak Grove Poultry Farm,
Mrs. Clara Meyer, Prop'r.

R. F. D. No. 2. NORFOLK, VA.

Our birds won first, second and special prizes at the Madison "Square Show", Price—1st, per \$5.00, 2d, Per \$3.00, and 3d, 1st \$2.00 for setting of 15, 1st incubator eggs \$2.00 per 100

EGGS

from good laying strains of pure-bred poultry
BARRED PLYMOUTH ROCKS,
Judge Geo. O. Brown strain.
WHITE PLYMOUTH ROCKS,
The very white kind.
ROSE COMB BROWN Leghorns.
15 Eggs 75c.
J. M. STEELE & CO., Stephens City, Va.

BARRED PLYMOUTH ROCK,

S. C. B. LEHORN,

PLUMOTH PEKIN DUCK

Eggs at 55c. per 15; \$4 per 100.
Fine B. P. Rock yearling hens, \$1.
C. C. COOPER, Cobham Wharf, Va.

White Plymouth Rocks

EXCLUSIVELY.

Strong, healthy, vigorous farm raised stock bred for laying eggs. Chicks, strong and easily raised. \$1.00 for 15. Also M. B. TURKEY EGGS, 1,000-acre range.—MRS. N. C. McFADYEN, Cameron, N. C.

EGGS FOR . . .

. . . HATCHING

Pure-bred GOLDEN, BUFF and BARRED PLYMOUTH ROCKS. Bred to lay; \$1 for 15.

DIAMOND POULTRY FARM, King, N. C.

EGGS!—THE BEST—EGGS!

from
THE BEST B. P. ROCKS in Va., \$1.25 per sitting of 13.
FIGS! from FIGS!

The best herd of Durocs in Va., \$7.50 to \$10.00 each.—THE CEDARS FARM, Midlothian, Va.

MINORSVILLE POULTRY PLACE.

Barred Plymouth Rocks

Stock and Eggs for Sale.
S. C. WHITE LEGHORNS.
Nice lot of cockerels, \$1 to \$2.
MAMMOTH PEKIN DUCK
Eggs, \$1 per 11. Other Eggs, \$1 per 15.
The above are of the finest strains and carefully mated. You will do well to place your order now.

GEO. GRAVES, Mgr., Venter, Va.

White Plymouth Rocks

Eggs now ready. Great big Graves and Root males. Save years of time and trouble by starting right.

BROWN LEGHORNS

R. W. HAW, Centralia, Va.

"RARVA" MEAT MEAL

95 Per Cent. Protein,
is a MEAT BUILDER
and EGG PRODUCER.

ECONOMIC,
CLEAN,
PURE.

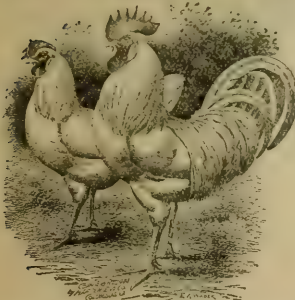
Price per 100 lbs. \$3.

Write for circulars and testimonials.

RICHMOND ABATTOIR,

Valentine's Meat-Juice Co., Props.
6th and Cary Streets,
Box 267-Dp't., M. Richmond, Va.

MRS. W. P. ALLEN,
BREEDER OF
S. C. WHITE LEGHORNS, Exclusively.
\$1.00 per sitting of 15 eggs.
EWING, VA.



"The hen that av is the hen that pays"

Eggs! S. C. B. Leghorn Eggs!
GOOD ONES.

\$1.00 for 15. \$6.00 per 100.
\$50.00 per 1000.

By Express Anywhere.

White Holland Turkey Eggs
\$2.50 for 10. No discount on large orders. No stock for sale.
Cal Husselman, Roxbury, Va. R. F. D. 1.

ing the public trees of any community which may care to call upon it.

It is remarkable how little uniformity there is in the use of tree names. Even scientific names, which are, of course, always more exact than the common names, are in many cases unsettled, but common names are often used almost at random. In different parts of the country the same species may be popularly known under very different names, and, on the other hand, the same name is often used in different localities for altogether different trees.

In the effort to assist toward uniformity of usage in scientific names of forest trees, and also to lessen the chaos in the use of common names, the Forest Service has already published "A Check List of the Forest Trees of the United States." This serves as a guide when once a tree has been identified by the botanist. But the first requisite is that the identification should be correct. It is here that difficulty is often met with. For this reason the Forest Service now offers its technical knowledge to city authorities.

There are two ways in which assistance may be given. Where the work is on a large scale, a representative of the service will visit the town or city and identify the tree by examination on the spot. In most cases, however, identification by correspondence will prove entirely adequate. This will require merely that specimens of the trees be sent to the Forest Service, together with a rough sample plat showing their location, the plat and specimen being numbered, to correspond.

For such identification a full set of specimens, illustrating mature foliage, and, if possible, specimens of the flowers and of the fruit (as the botanists call the seeds) should be sent. Fruit specimens are very essential, but flowers may be omitted if they cannot be readily secured. Two or three specimens of branches in leaf, 10 to 12 inches long, taken from different parts of the crown, so as to exhibit all of the leaf forms common to the species, will answer for the foliage. One or two specimens of the foliage, flowers and fruit may be placed between sheets of ordinary newspaper or blotting paper about 12 by 16 inches in size. Thirty to fifty specimens and sheets may thus be piled one on top of another, and the whole bundle placed between two stiff pieces of mill board, pasteboard, or thin picture backing, a little larger than the sheets of paper carrying the specimens. The package must then be well tied and wrapped, when it may be sent by mail if under four pounds in weight. If, before sending, the specimens are changed to dry sheets of paper once in twenty-four hours, keeping them constantly under a weight of from 40 to 50 pounds, they can be thoroughly dried within two or three weeks, when they will not be so heavy and will still

UTILITY AND BEAUTY

in one. My

S. C. White Leghorns

ARE LARGE

And PURE WHITE

They are from one of the best strains in the country. Noted for large size. Eggs \$1.50 per 15 carefully packed.

W. D. SYDNOR,

Barton Heights,
Richmond, Va.



WHITE POULTRY YARDS.

LORRAINE, VA.

can sell eggs from pure-bred WHITE HOLLAND TURKEYS and WILD MALLARD DUCKS at \$2.50 for 12; MAMMOTH PEKIN DUCKS, \$1 for 12; WHITE GUINEAS, WHITE WYANDOTTE and S. C. WHITE LEGHORNS, \$1.00 for 15.



VALLEY VIEW POULTRY YARDS

EGGS FOR HATCHING at \$1 per 15; \$1.75 30; \$2.75 per 50; \$5.00 per 100.

S. C. WHITE and BROWN LEGHORNS, BARRED PLYMOUTH, R. I. B. and S. C. WHITE WYANDOTTES, J. D. GILL, Prop., Dayton, Va. R. F. D. No. 19. Box 41.

EGGS FOR HATCHING.

SINGLE COMB BUFF ORPINGTONS, R. & SINGLE COMB RHODE ISLAND REDS, SILVER LACED, PARTRIDGE, COLUMBIAN and WHITE WYANDOTTES. Some Buff Orpington Pullets for Sale.—G. H. SHOOK, R. F. D. 1, Eufola, N. C.

EGGS FOR HATCHING

From SINGLE COMB WHITE LEGHORNS (Biltmore's prize winning strain), and BARRED PLYMOUTH ROCKS, 75c. for 15. 3 sittings for \$2.00.

S. C. RHODE ISLAND REDS, special mating, \$1.00 for 15. Satisfaction guaranteed. MRS. F. E. WILLIAMS, Charlottesville, Va.

S. C. & R. C. BROWN LEGHORNS

\$1 each; Eggs \$1 per 15. A 100-egg PRAIRIE STATE INCUBATOR and Brooder, at half price; used only 3 hatches.

A female SCOTCH COLLIE, 2 yrs. old, pedigreed 94 generations.

MRS. C. H. BENNETT, Hollins, Va.

THIRTY

S. C. B. LEGHORN

Eggs \$1; 100 for \$3.25; B. P. ROCK eggs, 15 for \$1 or \$5 per 100.

Reg. Scotch Collie, Fox Hound and Fox Terrier Puppies for Sale. Catalogue free. J. D. STODGHILL, Shelbyville, Ky.

S. C. WHITE LEGHORNS (Wyckoff strain).

B. PLYMOUTH ROCKS (Hawkins strain.)

S. C. BROWN LEGHORNS (Biltmore strain)

S. C. BUFF LEGHORNS. Stock and eggs for sale.

MAMMOTH BRONZE TURKEYS. Stock and Eggs for sale.—MARION POULTRY YARDS, Marion, Va.

Glenoe Farms Verona, N. C.

We desire to announce to the public that we have purchased the entire BILTMORE STRAINS of S. C. and R. C. WHITE LEGHORNS and S. C. BROWN LEGHORNS, acquiring all their prize winners, interest and will for said breeders; in addition to the fine strains that we have been carrying, BARRED PLYMOUTH ROCKS, WHITE WYANDOTTES, LIGHT BRAHMS, WHITE and PARTRIDGE COCHINS, WHITE CRESTED BLACK SPANISH, BRONZE TURKEYS and MUSCOVY DUCKS and MAMMOTH ROUEN DUCKS.

We will be glad to quote you prices on stock and eggs.

F. M. PRIDGEN, Supt.,
M. M. Grandin, Manager.

EGGS FOR SALE.

I am now booking orders for eggs from choice pens of ROSE COMB WHITE WYANDOTTES, S. C. R. I. REDS and S. C. BUFF ORPINGTONS. Write me for prices. Satisfaction guaranteed. Address, FOREST PARK FARM, Charles W. Smith, Prop., Williamsburg, Va. Box 33.

S. C. B. LEGHORN

and BARRED P. ROCK
Eggs for hatching; \$1 for 15. Book your orders for good Eggs.

No Stock for Sale.
TOPLAND POULTRY FARM,
Blacksburg, Va.

BERGER'S

BARRED PLYMOUTH ROCKS

bred for utility and beauty. Eggs from selected matings, \$1.50 for 15; \$2.75 for 30; \$4 for 45; Eggs from utility mating \$1 for 15; \$5 per 100. Your patronage solicited.—A. F. BERGER & SON, R. F. D. 3, Richmond, Va.

EGGS FOR HATCHING

From pure-bred BARRED PLYMOUTH ROCKS and PEKIN DUCKS. Satisfaction Guaranteed.—CHARLIE BROWN, Route 1, Cartersville, Va.

R. C. WHITE LEGHORNS

and BUFF PLYMOUTH ROCKS. Eggs, \$1 per 15; \$5 per 100.—FRED. NUSSEY, Massaponax, Va.

SINGLE COMB

White Leghorns

Exclusively. Eggs from this grand strain of Winter layers at \$1 per 15; \$5 per 100. Cocks and Cockerels, \$1.25; yearling hens and pullets, \$1.—J. A. ELLETT, Beaver Dam, Va.

SPRING BROOK POULTRY FARM,
Culpeper, Va.

S. C. B. LEGHORNS and Black Minorcas

Exclusively. The two breeds that fill the egg basket. Eggs, 75c, and \$1 per sitting. Satisfaction Guaranteed.

S. C. BROWN LEGHORNS

Prize Winners, 15 Eggs—\$1.00.
AUSTIN T. QUICK, Jr., Lynchburg, Va.

be in excellent condition for identification.

WITH THE ADVERTISERS.

The Aetna Life Insurance Co. publishes its annual statement in this issue.

The Kansas City Hay Press Co. is advertising its Pitless Scales.

In the advertisement of Mr. W. W. Collins in our February issue, the number of his splendid horses, "Red Court," was given as 35712, whereas it should have been 38712.

The Brown Mfg. Co. has several advertisements in this issue, to which attention is invited.

The Richmond Abattoir is offering its Meat Meal, a highly proteinous food for Poultry.

The Glenoe Farms announce their purchase of several departments of prize winning poultry from the Biltmore Farms.

Note the advertisement of Mr. W. R. Selleck in which he offers pure-bred cattle, hogs and poultry.

W. F. Richardson, Jr., & Co. have a couple of advertisements in this issue to which attention is invited.

Red Polled Cattle are offered by Messrs. M. B. Rowe & Co., Fredericksburg, Va.

The Cardwell Machine Co. has an attractive announcement of its Eureka and Centennial Corn Planter.

The Stratton & Bragg Co. of Petersburg, Va., starts the spring season's advertising with this number.

The Keystone Farm Machine Co. has a couple of advertisements elsewhere in this issue.

The Kemp & Burpee Mfg. Co. are offering their well known Success Manure Spreader.

The Marvin Smith Co. is a new advertiser in this issue, having a couple of attractive cards.

Williams Shaving Soap is prominently advertised on another page.

The A. B. Farquhar Co. is offering its well-known Keystone Corn Planter and Engines.

The American Harrow Co. has a Manure Spreader announcement on another page, to which attention is invited.

Look up the advertisement of D. Y. Hallock & Sons, in which they offer their Elevator Potato Digger.

Harrison's Nurseries have a seasonable announcement on the fourth cover page.

Julius Sytle & Sons have an advertisement in another column which is sure to interest the ladies.

The Bateman Manufacturing Co. are offering their usual well-known line of Iron Age Tools. Look up the ad. and send for their beautiful catalogue.

Mr. Clarence Pettit has recently purchased from Mr. C. L. Kerr, of Kentucky, the celebrated Jack "Alexander" and offers his services elsewhere in this issue.

The International Stock Food Co. has their usual announcement on another page.

WHITE

Wyandottes

EXCLUSIVELY.

I am prepared to furnish Eggs for hatching in large or small lots, from vigorous, farm-raised stock, produced from standard strains.

INCUBATOR ON SHORT NOTICE.

G. F. POINDEXTER, Greenlee, Rockbridge Co., Va.

SILVER LACED WYANDOTTES, EXCLUSIVELY.



I have bred and shipped leading varieties of pure-bred fowls since 1880; keep NOW S. L. Wyandottes only. — There's a reason? NONE BUTTER. Eggs, fresh fertile, from selected standard-bred stock, 13 for \$1.25; 80 for \$2.00; 100 for \$6.00. Safe arrival and satisfaction.

S. P. YODER,
Denbigh, Va.

White Wyandottes!

What's the matter with them? They're ALL RIGHT! I! What will you give me for eggs from a pullet, record 62 eggs Dec. 5 to Feb. 12? Eggs ONLY.

H. B. ARBUCKLE, Decatur, Ga.



Poplar Hill Poultry Farm
SILVER LACED
WYANDOTTES

EXCLUSIVELY.
Fresh eggs for hatching from high scoring birds \$1 per 15; \$3 per 100

Satisfaction guaranteed to every customer.

Dr. H. H. LEE, Prop., R. F. D. 4 LEXINGTON, VA.

EGGS FOR HATCHING.

WHITE WYANDOTTES

(Duston Strain)

bred for size and beauty. \$1 per sitting of 15.

FALL CREEK POULTRY FARM,

A. L. Parker, Ashland, Va.

Golden Wyandottes

EXCLUSIVELY.

Eggs for sale from this GRAND STRAIN OF WINTER LAYERS at \$1.00 per sitting of 15; \$1.75 per 30 or \$5 per 100. Satisfaction Guaranteed. No stock for sale.

Miss KATIE THOMPSON, Neverlet, Va.

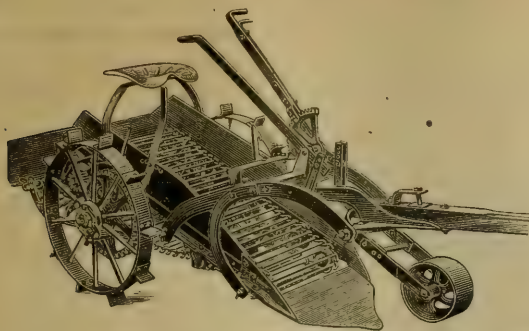
WHITE WYANDOTTES

EXCLUSIVELY

From pure bred Duston strain.

EGGS, \$1.50 FOR 15.

No better to be had at any price, 20 spring cockerels for sale at reasonable prices. Write for prices.—ELLERSON POULTRY FARM, J. W. Quarles, Prop., Ellersson, Va.



BUFF ORPINGTONS

EXCLUSIVELY.

The World's greatest Winter layers. We breed the S. Comb Buff Orpington only, and of the best blood that we could procure in the U. S. Our birds are from imported fowls, and have culled close and put no bird in our pens but the best specimens. We have 2 pens. Pen A is headed by 2 cocks. Sir Walter and Yellow King. Pen B is headed by 2 cockerels. Sir Chas and Bell Boy. Eggs, \$1.50 for 15 eggs; \$2.75 per 30 from either pen. Send for circular.

Address and make all orders payable to B. O. POULTRY YARD, Rapidan, Va., R. F. D., No. 1.

S. C. Buff Orpingtons,

Mammoth Bronze Turkeys.

We are now ready to book orders for

EGGS FOR HATCHING

Most of our pens of Orpingtons will be headed by males from Cook's prize Winning Straits Mated to hens of excellent breeding.

REMEMBER, WE GUARANTEE SAFE DELIVERY AND THAT ALL STOCK AND EGGS WILL BE AS REPRESENTED. We are giving away nearly enough in free premiums to prey express on stock or eggs. Write US, QUEEN-LAND FARM, Hagan, R. D., 2, Box 7, Va.

WHITE ORPINGTONS.

Young stock and eggs. BUFF ORPINGTON and White Wyandottes eggs only. A few OAKSADE M. B. TURKEY pullets left. 4 splendid Buff Orpington cockerels.

HUGENOT POULTRY YARDS, Dublin, Va.

Glenview Orpingtons.

Single Comb Buffs Exclusively.

Guaranteed eggs for hatching, from best matings. \$3.50 per setting; 6.00 per thirty. From Utility pens, \$2.50 per setting.

EXPRESS CHARGES PREPAID.

B. S. HORNE, Keswick, Va.

PURE-BRED

S. C. Buff Orpington

and B. P. Rock

Eggs, \$1 per 15.

MISS CLARINE LENA FORE, Jeffers, Va. (Mistletoe Castle on Roanoke Farm.)

S. C. Buff Orpington

and R. C. BROWN LEHIGH EGGS, \$1.00 for 15; choice stock. Also 10 B. Orpington hens, \$1.00 apiece.—MRS. MAY WOOD, Petersburg, Va. R. F. D. 1.

PROFITS IN POTATO GROWING.

The successful trucker is the one who looks carefully after all the details connected with the business; and not the least of them is how to separate the tubers from the soil the most economically for marketing. The old method of grabbing after the plow is slow and wasteful, and with the hook and easy going laborers hooking out one hill at a time, then resting on one elbow while with one hand tubers are thrown, three rows into one, to be picked up again with one hand, is much like a trip on a canal boat. Time is money; and with modern machinery the crop may be handled with absolute safety to the stock and larger net proceeds.

We ask the attention of our patrons to the advertisement of D. Y. Hallock & Sons, of York, Pa., now running in our columns.

WHAT THE NAME JOHNSTON MEANS TO FARMERS.

The name Johnston on farm implement has stood for everything desirable in farm tools for over half a century. The value of a firm name depends entirely upon the merit of the goods they make. It is a very easy matter to claim high quality, but it is an entirely different thing to prove this in the goods themselves. For more than fifty-five years The Johnston Harvester Company, of Batavia, New York, have been manufacturing a line of harvesting machinery and disk implements that has earned for them, both reputation and success, solely upon genuine merit, high quality and practical adaptability of the machines they make. Year after year, they have been governed by the experience gained through actual use in the field and in the shops, to the end that improvements have been continually added towards perfection, until now they stand at the head in their line. This line of machinery includes Grain and Corn Binders, Chain and Gear Drive Mowers, Rakes, Tedders, Reapers, Harrows, Cultivators and Spring Tooth Harrows.

It will certainly pay our readers to send to the Johnston Harvester Com-

—SPECIAL—

ORPINGTON PLACE (S. C. Buff Orpington Specialists), will furnish guaranteed eggs as follows: From:

Pen No. 1. Fifteen best females from a 600 flock mated to a Cook Cockerel, imported from Cook's English Farm "Orpington House," at \$3 for 15 eggs.

Pen No. 2. Headed by a Cook strain cock of a solid golden buff color, at \$2 for 15 eggs. Free range flocks of 70 choice hens and pullets, mated to cocks valued at \$15 to \$25 each, at \$1 for 15, \$3 for 50.

We are agents for New Method Incubators and Brooders. Send us 60c. for Cook's Orpington Poultry Journal for 12 months and keep posted on Orpingtons.

FAY CRUDP, Mgr.,
Jeffers, Mecklenburg Co., Va.

EGGS FOR SALE

From the following Breeds.

BUFF ORPINGTONS, BARRED PLYMOUTH ROCKS, RED CUBAN GAMES and Bantams. Also Mam. B. Turkey and Indian Runner Duck Eggs.

For further information write to MRS. HERBERT CARRY, Box 23, Ivy Depot, Albemarle Co., Virginia.

EGGS FROM S. C.

BUFF ORPINGTONS.

Excellent layers, beautiful solid buff color, choice in weight, quality and appearance. Eggs, \$1.25 per 15, \$4.00 per 50. Choice Jerusalem Artichokes, 75 cts. bu. 1, o. b. Jeffers, Va.—N. B. CRUDP, Jeffers, Va., R. F. D. No. 1.

EGGS FOR HATCHING

FROM

SILVER LACED WYANDOTTES.

It is not the PRICE but the QUALITY that is high. Carefully selected eggs \$1.50 for 15.

EDGEcombe FARM, R. F. D. No. 1.

Petersburg, Va.

S. C. B. Leghorn

Cockerels: limited number of pure-breds; none better; \$1 to \$1.50 for quick orders; Eggs, \$1 for 15; orders being booked. 3 TO 4 CARS RED CEDAR FOR SALE.—CEDAR RIDGE FARM, W. S. Guthrie, Prop., R. F. D., 2, Troutville, Va.

S. C. Brown Leghorn

Eggs, 75 cents for 15. Book your orders now for Spring Delivery. Special care given to each order. Satisfaction guaranteed. WEHERRIN POULTRY FARM, Branchville, Va.

The manager of the above farm is well-known to me and is thoroughly reliable. S. B. COGGIN, Agt., Southern Express Co.

Blue Andalusions

PERFECTION IN POULTRY!

Majestic and Beautiful! Wonderful egg producers all the year. Non-sitters. Why waste feed on scrub stock?

Our stock from best blood in America, first prize winners Madison Square Garden (1905). Orders booked now. Eggs, best pens, \$2.00 per 15.—Y. H. COUNCIL, Warrenton, Va.

Pigeons, Peafowl, Poultry.

Offer a few MATED pair thoroughbred homer pigeons for equal raising. Best stock in America. Also fancy Snow White Fantails. Peafowl with six foot tails. Leghorn Eggs, 15 for \$1.00. FANCY SELECT STOCK. Write your want early.—THOS. STEWARTSON, Tate Springs, Tenn.
Reference: Bradstreet or Dun.

ROSE AND S. C. RHODE ISLAND REDS.

S. C. Brown and White Leghorns, White Wyandottes, and Barred Plymouth Rocks

Eggs \$1.00 per 15; \$1.75 per 30; \$2.75 per 50; \$3.00 per 100. RIVERSIDE POULTRY FARM, J. B. COFFMAN & SONS, Prop'rs. R. F. D., 19, DAYTON, Va.



EGGS FOR HATCHING.

ROSE COMB, RHODE ISLAND REDS. No other chickens raised on the farm. \$1.00 per dozen.

MRS. JOS. M. HURT, Blackstone, Va.

RHODE ISLAND REDS.

Single Comb, Exclusively. Eggs for sitting, \$1 per 15. I keep only one strain, guaranteed pure-bred.—W. H. CREWS, Saxe, Va.

HIGH-CLASS BUFF WYANDOTTES.

EGGS FOR HATCHING.

\$1 per 15; \$2.75 per 50; \$5 per 100. All eggs guaranteed fresh and true to name.

A few fine Cockerels at \$2 each. Muddy Creek Poultry Farm, W. M. HEATWOLE, Hinton, Va.



BLACK MINORCAS.

Eggs for sitting in season, from the best strains of Black Minorcas, at \$1.00 for 15 and \$5.00 per 100 eggs.—A. C. THROCKMORTON, Rapidan, Va. R. F. D. 1.

The Hens that lay.
Are the ones that pay.

S. C. Black Minorcas

exclusively. Eggs from first-class stock, \$1.00 for 15; \$2.50 for 30.—J. S. WORTHAM, Lynchburg, Va.

4 FINE WHITE MINORCA

Cockerels, large birds, at \$3 each.—OAK GROVE POULTRY FARM, Mrs. Clara Meyer Prop., R. F. D. 2, Norfolk, Va.

EGGS! EGGS! EGGS!

From well-mated, well-marked, pure-bred BARRED PLYMOUTH ROCKS.

Satisfaction Guaranteed. 15 eggs, \$1.00; 30, \$1.50; 60, \$2.50. JNO. M. BERRYMAN, Churchland, Va.

10 PURE-BRED

Eagle Game Cocks

Cheap if sold at once.

FRANK PAOLI, Charlottesville, Va.

PIT GAMES.

BLACK DEVILS, RED CUBANS, and My Celebrated RED HORSES. Trial of young birds, \$4.50 to \$5.00. Eggs, \$2.00 per sitting of 15, two sittings for \$3.50.—THOS. W. JARMAN, Church Mills, Va.

Muscovy Ducks.

Very fine large Muscovy Ducks, \$3.50 per pair. Also a few White Plymouth Rock Cockerels choice breed. Mrs. S. Y. OLLIAM, Church Road, Va.

pany for their catalogue of the Johnston line of "not in the Trust farm tools."

Their advertisements on these different farm implements will be found elsewhere in this paper from time to time, and if you desire special literature on any particular machine this can also be had upon request. We are satisfied that the Johnston machines can not only be bought at a saving in price but, that the many satisfactory advantages of these machines will prove an additional saving that cannot be equalled by any other line.

When writing for their catalogue be sure to mention this paper, and your inquiry will have prompt attention.

GROWTH OF A GREAT HORSE REMEDY.

No better illustration can be given of great things coming from small beginnings than Kendall's Spavin Cure. It was compounded and used in a small way about 30 years ago by Doctor B. J. Kendall, in the then obscure village of Enosburg Falls, Vt. Since then the name of "Kendall's Spavin Cure" has gone to all parts of the world. The merits, and the merits alone, of the remedy have done it.

While Dr. Kendall was practicing he wrote a little book entitled, "A Treatise on the Horse and his Diseases." It is safe to say that no more popular work on this subject has ever been produced down to the present day. It was originally handed out to the horsemen with whom he came in personal contact. It is said that now upwards of 12,000,000 of these little books have been published and gratuitously distributed.

The cures of spavin, curb, ringbone, splint, wire cuts, sores, etc., and the expense and labor saved to horse owners by Kendall's Spavin Cure are beyond comprehension. For the greater part of these 30 years Kendall's Spavin Cure has been the chief, and with thousands of horsemen the only remedy used. It must be remembered that it is not confined to this country. It is decidedly a world remedy. With the little book mentioned above to guide, and with Kendall's Spavin Cure at hand to treat promptly any case of sprain, wound, lameness, incipient bone growth, etc., the ordinary horse owner is well fortified against all the common ailments to which horse flesh is liable. We believe it to be unquestionably a more efficient remedy and adapted to the cure of more of the ailments to which the horse is liable than any other now on the market.

NOT TO BE TRUSTED.

President—"About this man who asks for a situation as bookkeeper. Is he competent?"

Director—"They tell me he never was known to make a mistake in his books."

President—"That settles it. A man who's as expert as that is not to be trusted."—Boston Transcript.

MAMMOTH

BRONZE TURKEYS

from prize winning strains. SILVER LACED WYANDOTTE and BARRED PLYMOUTH ROCK FOWLS. ENGLISH BERKSHIRE pigs. Just weaned. Reasonable prices and satisfaction guaranteed.—J. G. BUFORD, R. F. D., No. 2, Dublin, Va.

MAMMOTH

BRONZE TURKEYS

Eggs in season.
PLYMOUTH ROCK COCKERELS.
G. W. BARBOUR, Somerset, Va.

EGGS--FRESH--FERTILE.

MAMMOTH BRONZE TURKEY, (the Famous National strain), from fine heavy breeders, headed by 45-lb. Tom. B. F. ROCK and WHITE WYANDOTTE (Hawkins and Duxton, direct). Eggs, \$1.00 for 15. Pullets and cockerels, \$1.00 to \$2.00 each. LANDOR POULTRY YARDS, Croxton, Va.

EGGS EGGS EGGS

MAMMOTH BRONZE TURKEY Eggs per sitting of 15 @ \$3.00.

Barred Plymouth Rock Eggs per sitting of 15 @ 1.00.

File applications early as the supply will be limited.—PIEDMONT POULTRY PLACE, Miss E. Callir Giles, Propr., Whiteside Depot, Va.

RIBBON WINNERS.

MAMMOTH BRONZE TOMS (no Hens). PEKIN DRAKES (no Ducks). BARRED PLYMOUTH ROCK cockerels. Satisfaction guaranteed.—CHARLIE BROWN, Cartersville, Va. Route 1.

THREE TOMS

One Wolf raised; very large; two pure Wolf strain, \$5 each. First order takes them.—HUGENOT POULTRY YARDS, Dublin, Va.

EGGS

from WHITE HOLLAND TURKEYS, \$2.00 per doz; \$3.00 per 100.

S. C. WHITE LEGHORNS, \$1.00 per 15; \$5.00 per 100.

WHITE PLYMOUTH ROCKS, 75c. per 15; \$4.00 per 100.—G. W. MOSS, Guinners, Va.

PEKIN DUCK EGGS

for sale at 10 cents each. Rankin strain direct; no shipment less than a sitting. M. L. WEST, R. F. D. 5, Richmond, Va.

M. B. TURKEY, B. P. ROCK and M. P.

DUCK eggs. Also, S. C. B. Leghorn hens. W. B. GATES, Ettricks, Va. R. F. D. 1.

WHITE WYANDOTTES

Celebrated Dunston strain 17 Egg-\$1.80 for \$1.50. —FANNY SUDER FARM, Jonesville, Va.

EGGS CHEAP PER 100.

Pure-bred S. C. White Leghorn Chickens. Write to me for prices. J. R. PACE, Oxford, N. C.

Homer Pigeons,

Bred of choicest selected stock from Plymouth Rock Squab Co., \$1 per pair. C. DE BRUYN KOPS, Wake, Va.

Always mention the Southern Planter when writing advertisers.

It Pays to Breed Only to the Best.

1906 IN THE STUD 1906
The Magnificently Bred Trotting Stallion.

Red Court 38712.

Rich Red Bay, 15.3 hands, weight 1175 lbs., foaled 1902. Hind ankles white, star in forehead. Individually, a horse of grand finish, plenty of substance, fine disposition, and level headed at all times. Two-year-old trial 2:28 1/4 last half 1:31, and goes without weight or boots. Sired by "Red Chute" 26395—1st dam Lemce by the great "Jay Bird," 2nd dam, "Katia Bella" by Bow Bella, he by Electioneer, out of "Beautiful Belle." The greatest brood mare of her century. 3rd dam "Fairwater" by "Lord Russell" full brother of "Maud S.," etc.

His sire, "Red Chute" is the sire of 7: 4 being Futurity money winners, (the only stallion with this distinction), and the sire of Oxford Boy, Winner Kentucky Futurity 1901, at 2 years, taking record of 2:20.

Red Court has the world's most famous producing and winning blood close up, has 7 producing dams, and in the first 4 generations of his breeding, there is not a sire or dam that is not a winner or producer.

I bought this horse of his breeder, Mr. W. W. Estill, Lexington, Kentucky, intending to race him, with the view of giving him a fast record before offering him in the stud. I have since concluded to offer him to the public first, for the season of 1906, and send him down the circuit in 1907. Barring accidents 2:10 will never stop this fellow and I want him to have some colts coming on as he will not be bred while in training. We was bred to 4 mares last fall, all of which are in foal, and as he is a young horse his book will be limited. Send for cut and tabulated pedigree of "Red Court" and it will carry its own argument of conviction that in producing and performing blood lines this horse is equalled by few and surpassed by none. For terms, address: W. W. COLLINS, Houston, Va., care Bank of Hall.

PIMPLES.

How to Quickly and Permanently Get Rid of Them.

Don't take a back seat because your face happens to be marred with disfiguring pimples or other unsightly eruptions, has ugly blotches on it, or is rough and red, and scaly from tetter eruptions. You can be cured and be among those in the beauty row. To bring out the hidden beauty, to make the skin smooth and healthy, and to keep the complexion clear, fresh and beautiful, use the three great Heiskell remedies—Heiskell's Soap, Heiskell's Ointment and Heiskell's Blood and Liver Pills.

Heiskell's Soap is a combination of medical gums and herbs, absolutely pure, and very soothing and healing.

Heiskell's Ointment is the great cure for all kinds of skin diseases. Pimples, blotches, freckles and even eczema are quickly and permanently cured by its use. It cures where all alternatives, sarsaparillas, iodines and mercurial medicines fail.

In all very stubborn cases Heiskell's Blood and Liver Pills should be taken to stir up the liver to healthy action, thus purifying the blood and hastening the cure. These three remedies are sold by all druggists: Ointment, 50c. a box; Soap, 25c.; Pills, 25c. a bottle, or by mail from Johnston, Holloway & Co., 531 Commerce Street, Philadelphia, Pa.

SUCCESS IN FARMING.

The successful farmer is not always the one with the largest fields, nor is the best seed always responsible for large crops. The modern farmer realizes that his success would be short-lived were he to go back to the primitive implements of his grandfather. It is the modern labor-saving implements that are responsible for the farmer's bank account.

Hench & Dromgold Co., of York, Pa., make various farming implements of the labor, time and money-saving kind. They take special pride in the "Twentieth Century Cultivator"—a machine which is in use all over the United States—a telling endorsement of its value on the modern farm. They also make a great variety of other farm machinery, among which are spring-till harrows, corn planters, grain drills, potato diggers, threshers, etc.

The catalogue which this firm issues contains many valuable points on the care and use of agricultural machinery, which every farmer would do well to read. A copy will be mailed upon request, by simply addressing Hench & Dromgold Company, York, Pa.

THE MOON, VERSUS, GROUNDHOG.

Now comes the tug of war between Moon and Groundhog. The hog, if there is anything in him at all gave us 6 weeks of bad weather, or bad weather to the middle of March, on the 2nd of February he had ample op-

HORSES FOR SALE

GRAY NORMAN gelding, foaled May, 1902, weight 1390 lbs.

BAY GELDING, foaled May, 1902, by Iron Crown, Vol VII, American Stud book, weight 1070, height 15.3.

GRAY MARE, foaled April, 1902, by Aureus by Solus out of Sample.

IRISH STETTER, born 1902, Sire Judge Plunkett, dam Redstone Lass.

For prices and information, apply to E. H. STORM'S, Mechum's River, Va.

2 BLACK REGISTERED

PERCHERON STALLIONS.

BRIILLANT MONARCH JR., 1904 good breeder, superlative, quality, 16 1/2 hands, 13 years old and clean-cut head and neck and heavy bal bone; can't use him longer.

MARMION, 1899, coming years old, bred by above horse, good style and heavy, clean bone.

POLAND CHINA PIGS 10 weeks' old, for March and April delivery and Barred Plymouth Rock Eggs 15 for \$1.00.

Thos. R. Smith, Lincoln, Loudoun, Co., Va.

Registered

PERCHERON STALLION.

SULTAN 34066 for sale; will be 3 years old April next, weighs over 1,500 lbs black in color sound bone and style, and all right. Will sell cheap for quick sale. Address, F. E. ALBERT, Roanoke, Va., R. F. D. No. 4.

PURE BRED

PERCHERON STALLIONS

for sale at reasonable prices; as good as can be found anywhere; especially desirable for our Southern States as they are acclimated; no risk of disease by purchaser. D. T. MARTIN, Salem, Va.

DRIVING HORSE.

Standard-bred, 15 hands, 5 years, sound kind in all harness, for sale at \$200.

One two horse power and saw mounted. W. S. MOTT, Dixondale, Va.

PURE-BRED SWINE AND POULTRY

Cherry Red HAMWORTH, POLAND CHINA and BERKSHIRE Sows, Shoats, and Pigs for Sale.

ROSE COMB BROWN LEGHORN and WHITE PLYMOUTH ROCK, Cocks, Cockereels and Eggs for Sale.

All Stock Registered and guaranteed to be of the very best and purest breeds. Address or visit the PARK VIEW STOCK FARM. R. B. Yowell, Propr., Culpeper, Va.

EGGS FOR HATCHING.

Pure-bred WHITE WYANDOTTES \$1.50 per sitting of 15 eggs. Apply to JOHN W. LANFORD, Medlock Va.

FOR LOANS ON VIRGINIA FARMS

APPLY TO

R. A. LANCASTER, Jr. Richmond, Va.

Free Samples

WORSTED DRESS GOODS,

WASH GOODS,

LACES.

Write your wants.

JULIUS STOLE & SONS, Richmond, Va.

A neat Binder for your back number can be had for 25 cents. Address our Business Office.

Stockmen

READ THIS: I defy any man or firm

to offer the same class of

Percheron Horses

—AND—

Shorthorn Cattle

for anything approaching the prices I place on mine.

A visit to the farm will convince any one with good judgment, that my stock is first-class in point of breeding and conformation. JNO. F. LEWIS, Lynnwood Stock Farm, Lynnwood, Va. N. & W. R. R.

Fine Mares

for sale at very reasonable prices; splendid lot of farm and work stock; also, some nice, well-broken mules. Parties wanting some good brood stock will do well to investigate our offering.—W. M. WATKINS & SONS, Saxe, Va.



KENTUCKY JACKS and STALLIONS.

100 head Jacks, Jennets, saddle and Trotting stallions. We now have a magnificent set of Jacks at the Kentucky State Fair 1905, than all other breeders combined. Our saddle stallions are bred by 7 of the greatest stallion owners in Kentucky. Come to see us we can please you. J. F. COOK & CO., Lexington, Ky. Branch Barn, Marion, Kansas.

7 of the greatest stallion owners in Kentucky. Come to see us we can please you. J. F. COOK & CO., Lexington, Ky. Branch Barn, Marion, Kansas.

I MAKE A SPECIALTY

of breeding and sex well-bred

Young Jack Stock.

50 head now on hand and for sale by

I. S. TEVIS,

P. O. Shelby City, Ky. Shipping point, Junction City, Ky.



KENTUCKY JACK FARM.

A fine lot of big black well-bred KENTUCKY JACKS, and IMPORTED SPANISH JACKS selected by me personally from the best breed of Jacks in Spain. We furnish a certificate of pedigree with each imported Jack. Come and see me or write for prices. I can please you. JOE E. WRIGHT, Junction City, Ky.



JACK (AT STUD) ALEXANDER.

Highly bred registered Kentucky black JACK with white points; 15.5 hands; broad flat bone; ideal information; good middle; big well-formed feet. Mules cost less to raise and sell higher than horses. Why not breed to the best Jack in Va., and make money?

Pedigree and terms from CLARENCE PETTIT, Elko, Henrico Co., Va. (Old Pollard Farm.)

Fine Spanish Jack.

7 yrs. old, for sale at \$150 Cash to a quick buyer; f. o. b. Danville, Va., or Milton, N. C. As sure as the best double and easily managed.—J. G. CLAIBORNE c/o De Kalb Hotel, Camden, S. C.



JACKS, JENNETS and STALLIONS.

Fine JACKS a Specialty. 3 to 5 years old past: write for what you want. Send 2c stamp for catalogue.

W. E. KNIGHT & CO.,

Nashville, Tenn., R. F. D. 5.

JACK WANTED.

I desire to purchase a good heavy Jack with a guarantee that he is all right in every respect.

L. W. PETERS, Bristersburg, Va.

25 HIGH GRADE

Angora Bucks

for sale Cheap. Apply to JEREMY IMPROVEMENT CO., Saxe, Va.

ANGORA BUCK

for sale, price \$15; fine, large and well bred; 3 yrs. old.—J. A. TRUESDELL, Bloomont, Va

PURE BRED

ENGLISH BULL TERRIER &

Pups, 3 months old, will sell or exchange. THOS. J. BELL, Edenton, N. C.

portunity to see his shadow all day long, as the day was practically cloudless, and for a winter day was faultless, so that in accord with hogghish lore, we should have had weather for 6 weeks from the 2nd of February.

Now the last quarter of the old moon, has given us splendid weather, fine spring weather, good clear pleasant seasonable spring weather, such weather as could not be found fault with. Moon lore says, "the last quarter of the old moon governs the first three-quarters of the new, or next moon." If such be the case we are reasonably sure of good weather until the middle of March, and then in all human probability the last quarter of the month in March will be wet and cold, and we may get "ground hog" weather in April.

At all events in spite of the "hog" the great Irish potato crop is being planted, and preparations are going on rapidly for the great trucking crops. Much land is already prepared for corn, and every plow and horse and hand is being put to good use.

With the exception of one day, the last two weeks has been the very best the nicest of weather. It is now up against the hog with the chances in favor of the moon. By the way next week we shall kill a pig or two, because the moon then is "waking" (growing) or expanding or increasing, so that the pork wont shrink up to a frazzle when it gets into the frying pan.

This is a Pennsylvania idea, in regard to the proper time to kill the pigs. We have been assured that pigs killed in the waning, weakening or shrinking of the moon would frazzle and frizzle to nothingness in the pan. We are going to try to keep on the right side of the moon anyhow. It don't cost much to find out. Any old darkey Uncle or Aunt on the farm can tell us just when the moon is right for planting the different crops.

But we shall watch the outcome of the crossing of the wires between moon and groundhog with interest. The issue is squarely and fairly joined, and we shall soon see which is which, and which has the longest pole and the strongest pull with the weather bureau.

A. JEFFERS.

A CHILD'S ADVICE.

One morning a Sunday school was about to be dismissed, and the youngsters were already in anticipation of relaxing their cramped little limbs after the hours of confinement on straight backed chairs and benches, when the superintendent arose and, instead of the usual dismissal, announced: "And now, children, let me introduce Mr. Smith, who will give a short talk."

Mr. Smith smiling arose, and, after gazing impressively around the classroom, began with: "I hardly know what to say," when the whole school was convulsed to hear a small, thin voice back in the rear lap:

"They amen and thit down."—Savannah News.

College of Agriculture

... AND ...

Experiment Station,

BLACKSBURG, VIRGINIA

BEEF CATTLE

We can offer some choice bull calves of Angus and Shorthorn breeds for spring delivery. These are especially good individuals, and of good breeding.

DAIRY CATTLE

Bull calves of Holstein and Guernsey breeds for sale for immediate delivery. We can furnish yearly records for the dams of these calves, both of milk and butter. Prices reasonable, considering the breeding of the calves.

BERKSHIRE PIGS

A few Berkshire pigs of both sexes, for immediate delivery.

For prices and other information, apply to JOHN R. FAIN, Agriculturist.

SPAYING

Your sows and other stock can be done without cutting, pain or death. Knife spaying is expensive and means a death loss of from 3 to 10% of your stock. The PRONTO PROCESS does the work without cutting and with absolutely no death loss.

Easy to apply. Safe, humane and inexpensive. Trial box, enough for 15 sows, \$1.50 postpaid. Send for it today. It means money in your pocket. Book No. 13 on stock spaying sent free on request.

PRONTO SPAYING CO., Jackson Park Station, Chicago, Ill.

LONE OAK

FRUIT AND STOCK FARM

PURE BRED

SHROPSHIRE LAMBS

For breeding purposes, also half-bred

DORSET LAMBS.

Four finely bred

HUNTER FOALS,

Yearling; pure bred

BERKSHIRE PIGS

Prices reasonable.

E. C. BROWNING, R. F. D. 1.

Ervington, Va.

DUROC JERSEY PIGS

FOR APRIL DELIVERY.
\$5.00 EACH.

These Pigs are very fine and entitled to registry.

A Few Rhode Island Red Cockerels—pure bred
to the Quick Buyer \$1.00 Each.

WILL SELL SOME FINE PURE BRED
White Leghorn Cockerels For 75 Cents Each.
A FINE LOT OF CELEBRATED
Pekin Ducks At \$1.25 Each.

Do not think because of the very low price that the stock is inferior. All of the above stock is strictly first class. Write to-day.

J. D. DILLON, Purcellville, Va.

GALLOWAYS.

I have for sale, 5 pure-bred Galloway Bull Calves, 7 to 9 months old; 3 of them bred by me, at \$50 each, and 2 bred by O. H. Swigart of Ill., (the foremost Galloway breeder in America) at \$100 each, all good ones. Will be kept until grass comes without extra charge, if Purchaser desires.

N. S. HOPKINS, Gloucester, Va

ANGUS CATTLE

for sale; Bulls and Heifers at moderate prices; also my Herd Bull, HERO OF BUNKE RHILL, 31462, eight years old in March, a sure breeder, will weigh 2300 pounds fat.

POLAND CHINA sow pigs, eligible to registry.

EUREKA SEED CORN—An improved Cocke's Prolific, the heaviest yielder of ensilage and grain.

C. E. JONES, Carysbrook, Va.

RIVERSIDE STOCK FARM.

ABERDEEN ANGUS CATTLE.

My Herd Bull "Carysbrook Duke" 95958, 4 years old, weight 1500 lbs. good breeder, gentle and easy to handle, not wishing to inbreed, is my reason for selling him. Price \$75.

I also have two Bull Calves, 8 months old, fine in size and form, both the get of our registered Bull "Carysbrook Duke," and out of two of our best pure-bred cows. Price, \$50 each, f. o. b. cars, Rapidan, Va. Address: S. H. GARNETT, Locust Dale, Va.

ROSE DALE HERD....

Aberdeen Angus

Top notch young registered Bulls our specialty. A few heifers to offer with bull not akin. We send out none but good individuals. Correspondence and inspection of herd invited. ROSE DALE STOCK FARMS Jefferson, Va.

REGISTERED

Angus Calves. Large Toulouse Geese.

J. P. THOMPSON, Orange, Va.

A HELPFUL BOOK FOR FARMERS.

To one not in constant touch with such matters it is truly astonishing news to learn at what a rapid rate rural telephone lines are being built all over this country. A network of such lines is fast spreading all over the land, furnishing a means of quick communication to the farmer as well as to the dwellers in the towns and cities.

But many communities have not yet built such lines, and the farmers there are consequently shut off from the benefits and privileges their more fortunate neighbors enjoy. It is only a question of time, however, until every farm home will have its telephone. The farmer who hasn't connection now with a rural line will soon be taking the matter up with his neighbors and figuring how they can build a line to their farms.



For the benefit of all such we recommend that they read the book, "How the Telephone Helps the Farmer," published by the Stromberg-Carlson Telephone Mfg. Co., Rochester, N. Y. Besides enumerating all the practical advantages the telephone offers the farmer and his family, it tells how to go about to interest your neighbors with you in building a rural telephone line; how to organize the company,—giving blank forms for constitution, by-laws, etc.; how to select and buy the proper equipment, with a chapter on the probable cost per mile to construct the line. Write to-day for the book, and tell them what you are doing and what you expect to do,—they will give you expert advice which will make the work easy for you.

FROM THE MATRIMONIAL PRIMER.

Absence may make the heart grow fonder; presents have been known to have the same effect.

Use your best conversational powers occasionally at your own dinner table. Many a man has won a woman's love and later lost her respect.

Be entertaining to your husband, or some other woman will.

A wise woman sometimes leaves her husband long enough to increase his appreciation, but not long enough for him to seek consolation.

Be sure that your husband carries each day the impression that he has left at home that morning the most charming, cheery, freshly gowned woman in the city.

GROVE FARM

R. F. D. Cockeysville, Md.

First Prize Herd

Guernseys

at Timonium and Hagerstown, Maryland, (only place HERD Shown).

BULLS ONLY FOR SALE

OUR BERKSHIRES.

were unbeaten at Timonium (Baltimore County), York Pa., and Hagerstown, Maryland, the only places shown in 1905. PIGS OF BOTH SEXES for sale.

C. & P. Telephone and Telegraph, 481 Lutherville, Md.

JAS. McK. MERRYMAN.

AYSHIRE BULLS.

We will sell a registered AYRSHIRE BULL CALF, at shipping age, for \$25 to parties in Virginia, Maryland or D. C. who have herds of grade Dairy Cows. The Ayrshire cross on grade Jersey, Shorthorn or local stock, greatly increases milk production.

8 calves, ranging in age from 18 down to 1 month, now ready; will deliver according to age as orders come in. Better order soon and get advantage of age.—MEL-ROSE FARM, Casanova, Va.

DEVON HERD. HAMPSHIREDOWN FLOCK ESTABLISHED 1864. ESTABLISHED 1880.

DEVON CATTLE

BULLS and HEIFERS,
Hampshire Down Sheep,
RAMS and EWES.

ROBT. J. FARRER, Orange, Va.

Swift Creek Stock and Dairy Farm

Has for sale a large number of nice young registered A. J. C. C.

JERSEY BULLS And HEIFERS.



None better bred in the South. Combining closely the most noted and up-to-date blood in America. Bulls 1 to 6 months old, \$75. Heifers, same age, \$35. POLAND CHINA PIGS, \$5 each. Send check and get what you want.

T. P. BRASWELL, Prop., Battleboro, N. C.

THOROUGHBREED

Berkshire Boars, Jersey Bull Calves, Dorset Buck Lambs.

Sire of Calves, FLYING FOX 65456, son of Flying Fox who sold for \$7,500 at the Cooper sale 1902.

All stock in best of condition and guaranteed as represented.

F. T. ENGLISH, Centerville, Md.

REGISTERED

Red Poll Cattle AND

Berkshire Hogs

Bulls and Boars for Sale.

Write us your wants.

AYERS & HATFIELD, Harriman, Tenn.

BEST HOG ON EARTH!

CHESTER WHITES at farmers prices; now booking orders for spring delivery.

S. M. WISECARVER, Rustburg, Va.

REGISTERED

Holstein=Friesian

Cattle; best butter producing strains: pure-bred JERSEY CATTLE, CHESTER WHITE, BERKSHIRE, JERSEY RED HOGS, and all the LEADING BREEDS OF SHEEP, also DUCKS, POULTRY and TURKEYS.

Write for my prices.
W. R. SELLECK, Huntington Harbor, L. I.

Three Holsteins

for sale: One Cow, one heifer and one young bull. Particulars by mail on application.
WM. N. MEBANE, Dublin, Pulaski Co., Va.

1 Polled Durham and Shorthorn

Calf for sale. Good individuals; good pedigrees: 5 Poland China Sows.—CHAS. M. SMITH, Rogersville, Tenn.

HEREFORD CATTLE.

Registered young cattle of BEST strains for sale at Farmers' prices. Will sell very cheap, several young bulls of fine individuality and best breeding. Also high grades of both sexes at beef prices.—WM. C. STUBBS, Valley Front Farm, Sassafras, Gloucester Co., Va.

REGISTERED

Hereford Bull

for sale or exchange. For particulars, apply to W. J. MCCANDLESS, Brandy Station, Va.

PURE-BRED

HEREFORDS.

3 cows 2 helpers and 2 young bulls for sale. Prices low. Correspondence solicited.
E. J. HARRISON, Flanagan's Mills, Va.

Springwood Short Horns.

Red and white Bull Calves 6 to 9 mos. old. Also a STALLION COLT 13 mos. old weighs over 1100 lbs. Sired by "Herman" the German Coach Stallion, weighing 1500 lbs.

I will sell this colt, also his sire. A FEW POLAND CHINA BOAR Pigs. The above at Bargain prices. Come or write.—WM. T. THRASHER, Springwood, Va.

ELLERSLIE FARM—

Thoroughbred Horses AND SHORTHORN CATTLE, Pure Southdown Sheep and Berkshire Pigs.

FOR SALE. R. J. HANCOCK & SON,
CHARLOTTESVILLE, VA.

ST. BERNARD PUPS

of imported and prize winning stock,
FOR SALE. For particulars, address
E. F. HENKEN U.S. TYLER,
Hanover Co., Va.

Surry County, Va., Jan. 17, 1906.
I enjoy the Southern Planter very much.
J. I. TURNER.

Don't take all elasticity out of your husband's purse by keeping your hand in it.

The most interesting book you can ever put in your wife's hands is a handbook in her own name.

VALUABLE BOOK FREE.

Those of our readers who have not secured one of this season's catalogues will do well to write to Mr. Chas. A. Cyphers, 3947 Henry Street, Buffalo,



N. Y., for a catalogue and a copy of his valuable book, "Eggs, Broilers and Roasters." This book is one of the most interesting and instructive pieces of literature ever gotten out on the subject. It takes up the different branches of the poultry business and covers them thoroughly. Mr. Cyphers has had much practical experience in rearing and feeding poultry, both for eggs and for broilers, and he is recognized by all poultrymen to be one of our best authorities on these subjects. He will send this book, "Eggs, Broilers and Roasters" free of charge to everyone interested in poultry-raising, and we feel sure that our readers will get much profitable knowledge from it.

JUVENILE SAYINGS.

Natural history always interests children, who usually recall explanations of the phenomena in their own way. An account of the habits of the cuckoo, for instance, was apparently absorbed at the time, but was reproduced thus a few days later: "The cuckoo? Oh, that's the bird that doesn't lay its own eggs."

A woman recently engaged to a widower asked his son, a little fellow of seven years:

"How would you like me for your step-mother?"

"First rate, as far as I am concerned," he replied. "You will have to speak to pa about it, though."—Illustrated Bits.

Lee County, Va., Dec. 26, 1905.
I cannot afford to be without your valuable Journal.

W. C. FUGATE.

Warwick County, Va., Jan. 19, 1906.
It is with pleasure that I renew the subscription of the Southern Planter, for it is a welcome guest at our home and its pages are eagerly read.

M. LIENAN.

Cottage Valley

Offerings for March.

A beautiful cream colored mare 15½ hands high, weight about 1,000 lbs. rides well, nice gentle driver, perfectly reliable in all harness. Compactly built and easy to keep. Will sell cheap. She is six year's old and a nice ladies' driver.

Several 15-16 GRADE ANGUS Bull Calves ready for service—will make fine bulls for grading up a herd.

A fine lot of thoroughbred O. I. C. pigs, both sexes, at reasonable prices.

BULL CALVES out of Shorthorn Cows, by Angus Bull.

Several registered Angus bull and heifer calves.

S. L. Wyandotte Eggs, \$1 for 15.
W. M. WATKINS & SON Prop's, Saxe, Va.

SCOTCH COLLIES

FOR SALE.

Give us your order for a choice Collie pup. Colors, sables and blacks with fancy markings. Eligible to registry, tracing to such Ch. dogs as Christopher, Ormakirk Wellington, Ormakirk Emerald and Doon Marvel. Parents trained drivers.

Address: H. H. ARBUCKLE, Edgewood Stock Farm, Maxwellton, W. Va.

ORCHARD HILL PURE-BRED

POLAND-CHINAS.

Taking orders now for spring pigs: one yearling Guernsey bull, whose granddam tested for advanced registry 348 lbs. butter in one year.—F. M. SMITH, Jr., R. F. D. 4, Charlottesville, Va.

POLAND CHINAS

With the business hams; large, mel low, easy keepers. We did not have half enough fall pigs. Have added to our herd a few choice sows bred to some of the best boars in Ohio. Will be well fixed inspiring pigs and have something extra good to offer for April and May delivery. A few bred gilts and some nice young boars for sale, satisfaction guaranteed. write your wants



A. GRAHAM & SONS,
Overton, Va.

HIGH CLASS

Poland Chinas.

Sunshine and Perfection Strains. Boars ready for service, Gilts bred for Spring litters, Choice Pigs of both sexes from 4 to 6 months old, mated for breeding, that are no akin. All eligible to Registry and first class. Prices low, write stating what age is wanted. Eggs for hatching from choice sows. Plymouth Rocks, \$1 for 15.—E. T. ROBINSON, Lexington, Va.

EXTRA FINE

Poland Chinas.

Lamplighter, Perfection and Sunshine stock. Write for Particulars.

C. H. MILLER, R. F. D. 3, Richmond, Va.

WEST RUN HERD

POLAND CHINA HOGS.

From the greatest Western winning strains, unsurpassed in type and breeding. Young boars and sows and pigs of both sexes.

Satisfaction guaranteed.

R. S. BEATY, Reliance, Virginia.

POLAND-CHINA SWINE

G. W. BARBOUR, Somerset, Va.

Poland China Pigs

Some fine ones, young sows bred, young boars and pigs. No bar breeding in the United States. My herd boars have been sired by J. H. Sandes, Lookmeover. Perfect I Know, Proud Perfection, Corrector and High Roller, the greatest prize winners of the breed—my sows have been as carefully selected.

RED POILED CATTLE. Fine good young bulls. Will sell. No bar cows and heifers. **ARROWHEAD STOCK FARM,** Charlottesville, Va., SAM'L B. WOODS, Prop.

Registered P. China Berkshire
C. Whites. Large strain
All ages mated not akin.
8 week pigs. Bred sows,
Service boars, Guernsey
calves, Scotch Collie pups and poultry. Write
for prices and free circulars.
P. F. HAMILTON, Cochranville, Chester Co. Pa.



BERKSHIRE BOARS.

A few choice Berkshire boars and boar-pigs for sale; pure-bred, eligible to registry; marking and formation perfect. Price \$5.00 to \$15.00 according to age and quality. No sows or sow pigs for sale at present.
S. C. Brown Leghorn eggs, \$1.00 per sitting of 15.—W. A. WILLEROY, Sweet Hall, King Wm. Co., Va.

BERKSHIRES.

2 Selected Boars ready for service; 4 Selected sow Pigs, 4 to 5 mos. old; Spring pigs for later delivery (April and May).
Correspondence solicited.—E. LODGE ROSS, R. F. D. 3, Bedford City, Va.

WALNUT GROVE FARM,

SHAWSVILLE VA.
Orders now taken for pure-bred

BERKSHIRE PIGS.

to be delivered after December 1st. None but the best will be shipped, others go to the pen. One two year old Hereford Bull, registered, for sale, a perfectly formed animal, and as well bred as America's best. Address all communications to W. J. CRAIG, Mgr., Shawsville, Va.

GLENBURN

BERKSHIRES.

In this herd are twelve royal bred IMPORTED animals. Also selected American bred stock. Our IMPORTED boars Highside Royal Victor and Loyal Hunter won first at Eng. Royal and Va. State Fairs, respectively. A splendid lot of pigs of gilt edged breeding now ready for shipment. J. D. J. KIRK, Roanoke, Va.

BERKSHIRE BOARS. I offer some exceedingly choice young boars for sale; by Imported Danesfield Tailor, 76490 and out of Baltimore bred sows. It will be hard to find better or cheaper stock

HENRY WARDEN, Fredericksburg, Va

Berkshire Pigs

of the best breeding, for sale; fine individuals, prices right. Also M. B. TURKEYS, a few B. P. ROCKS and S. C. B. LEGHORN Cockrels for sale. J. T. Oliver Allens Level, Va.

A PHONE FOR EVERY FARMER.

Of the many laborsaving devices which affect the farmer, none is of greater value or of more importance than the modern telephone, for there is no section of the country where telephones are of greater advantage than in the rural districts. With a telephone in the house, the farmer is always in close communication with his neighbors, the merchant in town, the doctor. Distances are no longer reckoned in miles, but in seconds.

A most ingenious method of establishing independent telephone lines has been perfected by the Cadiz Electric Company, of Cadiz, Ohio. Their method is especially adapted to the needs of the farmer, and the instruments and equipments are constructed with this object in view.

This firm publishes a book which fully explains how the farmer can organize, mail and operate independent lines. They mail this book, postpaid, for ten cents. Every line of its well-filled pages is solid meat—all information, not theory. To find out how easy it is to establish a line, write to the Cadiz Electric Co., 50 CCC Building, Cadiz, Ohio, for their special introductory trial offer.

Appomattox County, Va., Dec. 30, '05.

I have been reading the Southern Planter for twelve months and do not hesitate to say that I regard it as the best investment I have ever made.

P. H. COLEMAN.

Washington County, Va., Dec. 30, 1905.

I am well pleased with the Southern Planter. It is worth much to me and you should have much credit for such a Journal.

ROBT. T. CRAIG.

Bedford County, Va., Dec. 29, 1905.

The Southern Planter is the best of all the agricultural papers I take.

WM. A. GOAD.

Campbell County, Va., Feb. 9, 1906.

I cannot do without the Southern Planter.

ROBT. H. JONES.

Essex County, Va., Feb. 8, 1906.

I take more agricultural papers than I can take time to read and have been calling out to discontinue but will not stop the Southern Planter. That stands at the head.

C. C. WARNER.

Fauquier County, Va., Dec. 30, 1905.

I want to tell you that I get more real practical information that is applicable to our own Southland from the Southern Planter than all the other papers that I take combined.

Tazewell County, Va., Dec. 29, 1905.

You publish one of the best farming papers in the South.

C. H. PERRY.

Princess Anne County, Va., Jan. 3, '06.

I will advocate the Southern Planter whenever I can. It is the best publication for the farmer.

D. D. BATTEN.

WANT ADS.

Rate 2 cents per word. Cash with order. Initials and figures count as one word. 25 cents minimum charge.

\$96 MONTH SALARY FOR MAN with rig to introduce Royal Stock and Poultry Remedies. This Co. means business and can furnish best references. Send for Contract. Dept. A7 Royal Co-Op. Mfg. Co., Indianapolis, Ind.

THE SOUTH SIDE STRAWBERRY CRATES and Baskets. Send for Catalogue and prices. South Side Mfg. Co., Petersburg, Va.

150 NAMES AND ADDRESSES OF PRACTICAL farmers. Collected in 1905. For 25 cents in stamps. Robert W. Hooke, Dayton, Ohio.

THE SOUTH SIDE LETTUCE AND BEAN Baskets, Nos. 25, 26 and 27; send for Catalogues and prices. South Side Mfg. Co., Petersburg, Va.

WANTED—YOUNG WHITE MAN WITHOUT family, to work farm this year; highest wages to good man; prefer one who can do rough carpenter work; must be first-class teamster and understand what to do on a farm and how to do it. W. T. McFall, Salt Creek, Va.

Make Your Idle Money Earn You Interest

Write the **FIRST NATIONAL BANK OF RICHMOND, VIRGINIA** for information concerning its certificate of deposit, so arranged that one per cent. may be collected every **FOUR MONTHS** through your nearest bank or store.

Our experience proves this form for savings to be the most satisfactory plan yet devised for deposits of \$100.00 or more.

Our Capital and Surplus is **ONE MILLION DOLLARS.**

JOHN B. PURCELL, President.
JNO. M. MILLER, Jr., Vice-Pres. & Cashier.
OMAS R. BURNETT, Assistant Cashier.
J. C. JOPLIN, Assistant Cashier

Salt Pond Herd. DUROC JERSEYS.
PAUL J. 21625, son of Om Paul, head of herd. Sows by Red

Kover, Jumbo, Longfellow and other noted hogs. A choice lot of Pigs at reasonable prices, ready to ship.

S. A. WHITTAKER, HOPESIDE, VA.

Dorsets

Woodland Farm has a few of the best rams it has ever offered. Wool is an item worth considering this year, and our rams are exceptionally heavy shearers, besides having excellent mutton forms. J. E. WING & BROS. Mechanicsburg, O.

Washington County, Va., Jan. 19, 1906.

I like the Southern Planter very much and regard it as better adapted to our Southern country than any other Agricultural Journal.

E. G. MCCLURE.

UNDERSTRAPPERS.

"o.Deacon, I shall not pay any stipends this year. I don't care to work hard all week and ride a tired horse four miles on Sabbath to listen to an understrapper."

"I am sure," replied Deacon Smith, "you could find no fault with our last sermon."

"True, Deacon, the sermon was all right, it was no doubt previously prepared and superintended, and well practiced; but the young man couldn't say his prayers. I have a pretty fair memory, and from each seminary from which we receive supplies the students in their prayers use the forms of their respective schools."

"Is there anything amiss in any of these forms you notice?" the Deacon deferentially inquired; for Aunt Cassie was influential and one of the financial pillars.

"It's enough to make up an audience for the understrappers to practice to without paying them the price for finished work," and "Aunt Cassie," as she was called in her circle, refused to open her lips or purse further on the subject.

We were but a child when this conversation took place. Since then various cases of understrapping have come within our notice.

At one time a young girl was engaged at the highest customary wages to do housework. At the end of the week the loss of family supplies wasted in preparing food and burning of the same from neglect while cooking; destruction of furniture, fabric and utensils nearly equaled her wages. We found it necessary to dismiss her. This is an exceptional case; but we could not help noting that there are understrappers in domestic service. During her stay we were informed of Mrs. Kyles' methods of housework. Mrs. Jones's system, in fact different neighborhood authorities in doing housework. Her preparation for work...consisted more in observation than in experience.

Quite recently a mason was employed to perform a very important piece of cement work for which he charged and was paid union wages as soon as the job was finished. After a fair test the job is defective—another understrapper.

A man, who through signing other men's papers, had lost his farm applied to a neighbor of ours for position as farm hand. He came well recommended. His farm was a model one. His service proved unsatisfactory. It was "Know how, but couldn't do" with him. He could superintend, but lacked in manual experience.

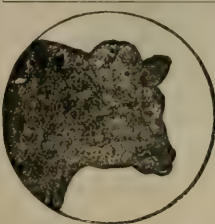
"The eye of the master does more

S. C. W. LEGHORNS.

I have an extra fine lot of Stock and Eggs for Sale; Also Eggs in season from R. I. REDS, WHITE WYANDOTTES and S. C. Buff Orpingtons. My prices are the lowest. H. W. STEWART, Eufola, N. C., R. F. D. 1. Box 6.

FIRST CLASS
EGGS and STOCK

My prices will please all as will the quality. Some first prize cocks head my flocks. BUFF ORPINGTONS, WHITE and BROWN LEGHORNS, GOLDEN, SILVER and WHITE and SILVER PENCILED WYANDOTTES, S. S. HAMBURGS, BLACK LANGSHANS, BLUE ANDELUSIANS, and R. C. R. I. REDS. Wea seven lots on my S. P. WYANDOTTES, 1st and 2nd hen; 1st pullet. O. E. SHOOK, R. F. D. 1, Waugh, N. C.



BERKSHIRES.

Very fine 6 months boars, from registered daughters of Elmwood Chief of Biltmore and Commander's Beauty; Sire, Mason of Biltmore II.

Three latter purchased from Biltmore Farms. Also young boars from two bred Berkshire sows, bought Biltmore sale August 23rd, 1905.—ROBERT HIBBERT, Charlottesville, Va.

WHITE MARSH FARM.

To change Sires we offer our REGISTERED SHORTHORN BULL, YOUNG DAKOTA III, blood red, weighs 2200 lbs. Also 3 yearling Shorthorn Bulls and 3 Bull Calves from Registered Stock.

Some good BERKSHIRE PIGS, Biltmore Strain; M. B. Turkeys, toms and hens, large size.—WM. J. BURLLEE, White Marsh, Gloucester Co., Va.

The Delaware Herd of

ROYAL ANGUS CATTLE

is not surpassed either in breeding or individual animals by any herd in the East. At the head of our herd is

PRINCE BARBARA, 68604,

the son of the great \$9,100 Prince Ito. Females of equally choice breeding. Write your WANTS remember, we take personal care of our cattle; keep no high priced help; incur no expense of exhibiting; all of which enables us to offer stock at equitable prices. Send for pamphlet.

MYER & SON, Prop.

Bridgeville, Del

SUNNY HOME HERD
—OF—

Aberdeen Angus Cattle.

Several of our friends failed last year to order bulls until after the close of the quarantine, and consequently were disappointed in not being able to get what they wanted. To save this trouble NEXT SPRING send your order NOW with BANK REFERENCE and I will ship your bull, you to pay for him when ready to use him next spring. This has been the best year in the history of the Sunny Home Herd. Cattle better than ever, and sales to match.

Send on your orders, we are ready for you.

Address: A. L. FRENCH, Propr., R. F. D. Byrdville, Va. Station Fitzgerald, N. C., on D. and W. Ry.

RED POLLED CATTLE.

One Registered Bull and eleven Registered Cows, and also a Junior Heifer, one Bull and four Heifers. We also offer a few calves entitled to registration.

We have a few BERKSHIRE SOWS due to farrow in March and April.

EGGS FOR HATCHING;

BRONZE TURKEYS, PEKIN DUCKS, B. P.

ROCKS, BROWN LEGHORNS, TOULOUSE

GEESE ALSO B. P. ROCK COCKERELS.

M. B. ROWE & Co., - - Fredericksburg, Virginia.

Single Comb White Leghorns

Wyckoff strain of celebrated layers. EGGS \$1.00 for 15. BARRED PLYMOUTH ROCKS Parent stock from Biltmore, Eggs \$1.00 for 15.—COTTON VALLEY FARM, Tarboro, N. C.



SCIENTIFIC MILLS

Grind all grains, ear corn, shelled corn, oats, rye, wheat and barley. Largest capacity with smallest power.

STRONGEST and most DURABLE

50 styles and sizes. Sweep, Geared, Combined and Power.

Also Scientific Gas and Gasoline Engines. Write for new catalogue.

THE FOOS MFG. CO., (Established 1873) Springfield, Ohio



than both his hands" the proverb has it, but when we apply for hand work we should first educate our hands. In counting this man's wages, a crippled horse, some broken machinery and crop failures his employer found his year's experience to be rather costly sympathy. When told this circumstance we again recalled the remark of Aunt Cassie, and we are considering whether we are not too careless in selecting our employees, in not insisting upon thorough training as a qualification for full wages, or engage inexperienced help as apprentices, the same as it is employed in other industries.

Knowledge in this way acquired would in the end be of more real value to the employee than if full wages had been given for bad service. Since "All we're after is the money," as one girl stated, and if it can be obtained for careless service where is the incentive for better work?

Recently a housewife observed, "The most independent class of people we have now is hired help, particularly the hired girl." If we should demand honest work and full time for honest money, and settle accordingly, might we not instill into our business transactions the lessons of fair dealing? On the other hand pay them off and get rid of them" is but to put a premium on cunning and irresponsibility. There is a growing demand for good housekeepers and the hired girl in her various households has opportunity to educate herself along domestic lines; for if so disposed there are but few persons from whom we cannot learn something of worth, be it ever so little, and by careful and thorough discharge of duties one can often qualify for a more permanent and higher grade of work.

The same holds good with the inexperienced man or the understrapper as herein introduced. He, by close application and intelligent attention to detail will meet various opportunities to acquire the fullest knowledge of whatever industry he may be employed in, and thus fitted, often make opportunity instead of await opportunity.

FANNIE LOVE.

National Stockman.

BACON HOG PRODUCTION.

If the bacon trade of Canada is to continue to improve, it is necessary that hog-raisers adhere to the class of animals most suited to the requirements of the British market. In the production of hogs of the large type, Canada cannot compete successfully with the United States. A visit to the Chicago stock-yards and to the western cattle feeding centers afford ample evidence of this. A large proportion of the cattle are fed on snapped or shelled corn. Herded with these are hogs that thrive and fatten on the undigested corn left by the steers. These hogs, constituting a by-product of cattle feeding, are pro-

Hygeia Farm Holsteins.

Covesville, Albemarle County, Virginia.

The Finest Herd of Registered Holsteins Ever
Brought together in the Southern States!

Some Noted Animals—Cows.

JESSIE VEEMAN A and all her living daughters, seven in number, are in this herd. The mother of this noted family is one of the noblest types of the breed to be found. She has an A. R. O. record of 26 1/2 lbs. butter in 7 days and produced 484 lbs. milk during the test. She won the Championship and first prize at the N. Y. State Fair in 1903. The oldest daughter of this cow, JESSIE VEEMAN C, won first prize at N. Y.

State Fair in 1905, and four of her daughters in pairs won first and second prizes as producers of one cow, an event without a parallel.

SCOTIA 4TH, A. R. O. Record, 20.3 lbs. butter in 7 days

NETHERLAND FANCY ROSETTA, A. R. O. Record, 20.5 lbs. butter in 7 days.

COUNTRESS DORINDA DE KOL, A. R. O. Record, 20.5 lbs. butter in 7 days.

BULLS.

PONTIAC CALYPSO'S SON. This grand young Pontiac bull is very much the type of the greatest living Holstein bull, Hengerveld De Kol, the sire of his dam and of over 50 daughters now in the Advanced Registry. His dam, PONTIAC CALYPSO, and the 2 nearest dams of his sire, BERYL WAYNE'S PAUL DE KOL, have official 7-day records which average 25.38 lbs. butter with a weekly milk test of 4.06% of fat.

AAGGIE CORNUCOPIA MERCEDES COUNT is another grand young bull in which centers the best blood of the Pieterterp strain. He is the grandson of AAGGIE CORNUCOPIA PAULINE, the world's champion cow, whose official record is 34.31 lbs. butter in 7 days, average per cent. of fat in milk during test, 4.17. His sire is AAGGIE CORNUCOPIA PAULINE COUNT.

WHY HOLSTEIN FRIESIANS?

I have brought Holstein-Friesian cattle to Hygeia Farm,

(1), Because more than 40 years experience as a physician in prescribing milk for invalids and infants has taught me that their milk is better food than that of other breeds. At first, I only learned that the milk of some breeds disagreed with my patients and thought it was due to excess of butter fat. Later, microscopic examination proved that the fat globules of Holstein milk were much smaller and better distributed, being more like those of human milk and, therefore, more digestible. Analysis also showed a larger per centage of solids other than fat, proving it to be richer in constituents that go to form bone, muscle, fibrous and nerve tissue.

(2), Because I believe they are better for the Southern States than any other cattle and that they will do more to enrich our people and to restore and maintain the fertility of our soil. They have done more for Holland than any other breed ever did for a country, and can do as much for us. They

are vigorous, docile and long-lived; are the greatest milk and butter breed; are good beef cattle, and by far the best to grade up our common stock. In Holland, the average weight of Holstein cows is over 1,400 pounds. Calves weigh from 80 to 125 pounds at birth, and often gain 100 pounds per month until a year old. Pure-bred and grade steers at a year and a half or two years old, average from 1,200 to 1,500 pounds, while mature steers and bulls weigh from 2,000 pounds upwards. Some have weighed 3,500 pounds, and even more. As oxen, they are unsurpassed. Avery's famous pair of draft oxen, Champions of the United States, that weighed over 6,000, were Holsteins.

I AM PREPARED TO FURNISH THE BEST PURE-BRED HOLSTEIN-FRIESIAN CATTLE, FROM A SINGLE CALF TO CARLOAD LOTS, EVERY ANIMAL GUARANTEED TO BE AS REPRESENTED.

For further information, write me, or, visit Hygeia Farm, Covesville, Albemarle county, Virginia.

Samuel Adams Robinson, M. D., Propr.

duced at a cost much lower than pork can be raised in Canada. All United States hogs are not fed in this way, but a large proportion of them have, at least, the advantage of cheap corn, than which there is no better feed for producing fat hogs of the lard type. Let the Canadian farmer go back to the thick, fat type of hog, as some talk of doing, because they think they have a grievance with the packer, and it will not be long before the price of Canadian bacon will have fallen to a level with the United States product, which is usually from ten to fifteen shillings per hundred, and twelve pounds lower than the quotations for Canadian "Wiltshire" sides. It seems to be very generally supposed that pork is more cheaply and easily produced from hogs of the thick, short American breeds than from the three English breeds which are favored for bacon production. Why such a belief should be so general is difficult to understand, as repeated tests conducted at various experiment stations have shown that hogs of the Yorkshire, Berkshire and Tamworth breeds produce pork as cheaply as those of the Poland China, the Chester White, or the Duroc Jersey breeds. In the opinion of Prof. Day, of the Ontario Agricultural college, who is foremost among authorities on bacon production, the lusty, growthy pig of the bacon type is the most economical pork maker we have, especially when reared, as the bacon hogs should be, largely on roots, soiling crops and dairy of-fal. There is much difference of opinion regarding the cost at which hogs, fit for market, can be produced, and there is probably as much difference between the cost to one feeder and the cost to another as between these opinions. Under general conditions, the production costs in the neighborhood of five dollars per hundred pounds on an average. In summer, under favorable conditions, the cost may be somewhat lessened, but in winter pork can hardly be produced at the figure mentioned. As in all other lines of production, the cost will vary according to the character of the animals fed and the amount of intelligence exercised by the feeder.

Taking one year with another, the Canadian farmer on good land, who understands corn growing and hog-raising, can undoubtedly raise hogs as cheaply as the figures quoted, and probably for less. He will keep only such sows as produce large, lusty litters of the right type. He will grow such pasture and soiling crops as clover, alfalfa, rape, vetches, mangels, sugar beets, and such crop grains as yield the greatest number of pounds of hog-feed per acre. In other words, he will manage his operations in such a way that will return him the greatest return in hogs per acre of land, and in so doing, will learn to reduce the cost of raising hogs of the best type to a minimum. JAMES B. SPENCER. Live-stock Branch, Dept. of Agriculture.

Hereford Cattle and Berkshire Hogs

Our Herefords are the Cream of the best Herds in this country. REX PREMIER our Herd Bull is perfect in conformation. He won first at Mo. State Fair, Hamlin, Minn., Kansas City Royal, Lexington, Ky., Lawrenceburg, Ky. and Shelbyville, Ky. His sire was the first Bull ever defeated Dale and was Grand Champion for two years. Our Hereford Matrons are by such noted Bulls as March-On, Beau Donald, etc. Young stock for sale. Also a few choice cows.

In Berkshires, we observe the same rule, always the best. We are constantly adding new Blood. Our present Herd Boars are two noted Kentucky hogs, Royal Bachelor and Reality Duke, both won first wherever shown at Ky. Fairs. Either one will tip the scales at 800 lbs. in good condition. Several of our aged sows will do the same. Among the latter are several Sweepstakes Winners. Pigs, etc., for sale at all times at reasonable prices. All statements and representations guaranteed.

ELKTON STOCK FARM

FOREST DEPOT, - - VIRGINIA.

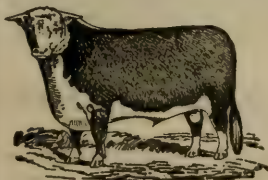


ACTOR 26th, 186288

INGLESIDE HEREFORDS

Owned by S. W. Anderson, Blaker Mills, Green-brier county, W. Va.

A choice lot of BULLS, COWS, and HEIFERS for sale. Also a few POLLED HEREFORD BULLS recorded in the National Polled Hereford Records. Write for catalogue and prices. Farm near Alderson, W. Va., on the C. & O. E. R. Telegraph and Telephone office, Alderson W. Va.



Grand Champion Prince Rupert, No. 79639.

HEREFORD CATTLE

HIGH CLASS HERD.

PRICES VERY REASONABLE.

EDWARD G. BUTLER, "ANNEFIELD FARMS,"

Berryville, Va.

Best English and American strain

BERKSHIRE HOGS.

ROSEMONT FARM HEREFORDS.

The \$3,500 ACROBAT is our chief stock bull. He is sire of the \$3,750 Champion Carnation. We offer for the next two months, six year old bulls at bargain prices, three by ACROBAT, out of Gloria Dale, a daughter of the \$10,000 Champion Dale, Viola, of Corrector blood, and Carnation, by old Earl of Shadland and "the undefeated." Three are by Marquis of Salisbury 16th, out of Kitty Clover, and Carnation 11th, both grand cows by ACROBAT, and Belle Donald 31st, by Beau Donald.

We have a useful helper out of Imported cow, with calf by side and bred again, also for sale reasonable. She is a good straight young cow.

Write for catalogue. History, picture of Acrobat, etc.

ROSEMONT FARM HEREFORDS.

Berryville, Virginia.

HEREFORDS

ENTIRE
HERD.

DORSETS.

Sold to settle Estate.

H. ARMSTRONG, Lantz Mills, Va.

THE NECESSITY FOR WOODS.

Editor Southern Planter:

A certain proportion of every inhabited country should be kept continually in woods to raise timber, which is indispensable to the comfortable existence of civilized life. No country, except in the savage state, can get along without wood. Even savages need woods as a game preserve. Of course there can be too much of a good thing, just as a farmer can keep too much stock for the size of his farm, or too many horses and carriages for the size of his purse.

Three hundred years ago, when the first English colonists landed in Virginia, they found the whole country bordering the Atlantic, from the St. Lawrence to the Gulf of Mexico, a dense wilderness of woods, in which a few scattering Indians roamed in the pursuit of game, or to make war on their enemies. There were no large cleared farms—only here and there an acre patch, where the squaws raised corn and beans.

The first colonists saw nothing but continuous forest, which, so far as they knew, extended over the whole North American continent. They never heard of the great treeless plains of the west. A vast amount of labor had to be expended in clearing the land and raising crops among the stumps and roots. The destruction of the woods to make farm lands was as necessary as the destruction of weeds in the garden to raise vegetables.

The removal of the greater part of the woods was a stern necessity, but the removal has been continued too long. The great primeval forests of the United States are either all gone, or on the way to rapid destruction. After lumber became valuable, steep side hills and rocky ravines, which never should have been cleared, because valueless for cultivation, and only fit for raising timber trees, were devastated by the lumbermen, and the forest fires which usually follow them. The lumbermen bought extensive tracts of timbered land and soon stripped it of all the trees suitable for lumber, telegraph poles, railroad ties, and mine props, and then moved their mills farther into the woods to devastate another fair region. Fiercer forest fires followed the lumbermen, destroying the young trees they had left, giving brush and briars full possession of the soil.

According to the census of 1900 the total area of wood-land in the United States was 1,094,514 square miles, or 699,500,000 square acres.

The amount of sawed lumber produced during the census year was 35,084,116,000 feet board measure. The quantity exported was 2,045,474 feet, leaving more than thirty-five billions of feet as the yearly home consumption. Besides the sawed lumber exported 3,788,740 cubic feet of hewn timber was exported. Total amount of timber used for fuel, fences, lath,

FEED

Muellers Molasses Grains

FOR MILK, MEAT AND MONEY

and you will be glad you saw this ad. It will increase the flow of milk beyond your expectations, and at the same time put your cows in better condition—it will put new life and energy in your horses and make them profitable workers—read Mr. Clay's testimony.

Muellers Molasses Grains is a rich, palatable grain feed for all kinds of stock—has a guaranteed analysis of 22.54 protein, and is very reasonable in price considering its value. It is made of Dried Brewers Grains, Malt Sprouts and Molasses—nothing else—has no drug or condition powder of any kind in it, and can be fed in large quantities or for any length of time with perfect safety.

Muellers Molasses Grains is a straight balanced ration with the addition of hay or other long feed, but being much richer than either oats, corn, bran or meal, it requires less, but yields better results.

Why not test the matter? We are willing to assist you to the extent of sending you a twenty pound sample free of charge delivered to your depot.

Cut out the Coupon, fill it in and send it to us—do it TO-DAY, and we will send you the sample at once with full particulars. We know what the results will be and we want you to know it. Better still—send in an order for a few bags or a ton, and you will not be disappointed in results. Sold in 100 lb. and 200 lb. bags.

Manchester, Va., Feb. 15th 1906.

MESSRS. S. T. BEVERIDGE & Co.,

Richmond, Va.

Dear Sirs: I am now willing to confess, after twelve months or more experimenting with Muellers Molasses Grains, it exceeds anything I ever used, in my experience with horses and cows.

My horses are in better condition than I have ever seen them, and I know it is due to Muellers Molasses Grains; as they will not eat any other grain if they can get that. They have more life and energy than they ever had and look sleek and glossy.

I have used it and am still using it at my farm, for my milk cows and will say with hesitation that it beats anything I ever saw for producing milk.

Yours very truly,
SOUTH SIDE WOOD YARD,
C. E. CLAY Manager.

COUPON FOR SAMPLE.

You may send me 20 lbs. Muellers Molasses Grains Free—delivered to my depot.

Name _____

P. O. _____

State _____

Depot _____

S. T. BEVERIDGE & CO., GRAIN, HAY AND SEED DEALERS,

1217 E. CARY ST.

DISTRIBUTORS,

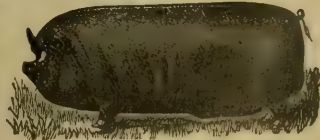
RICHMOND, VA.

Fancy Berkshire Pigs

from directly imported sows and boars, practically imported blood for you at one-third usual price for such breeding; half imported and half American breeding at pocket-change prices—just a little money order—no bank account needed for these extra fine open and bred gilts.

PEKIN DUCKS AND EGGS for sale. S. C. Brown Leghorn

eggs cheap. Barred Plymouth Rock eggs cheap. Absolutely pure—all of them. Thomas S. White, Fastfern Stock and Poultry Farm, Lexington, Va.



Sir John Bull.

staves, shingles, paper pulp, railroad ties, and mine props, yearly, 39,623,000,000 cubic feet. The forests from which this supply must be drawn are rapidly decreasing.

Mr. Gifford Pinchot, chief of the forest bureau of the United States, says: "At the present rate of cutting, the forest land of the United States cannot meet the enormous demand made upon it. By far the greater part of the pine has been cut, and vast inroads have been made into the supply of other valuable timbers." The bureau statistics place the amount of timber being cut at the rate of 40,000,000,000 cubic feet a year, and says that if the same average is continued the supply will not last more than sixty years.

It requires over 23 billion cubic feet of wood to supply the people of the United States with fuel, in addition to the coal consumed. Let our wood-lots become exhausted, there is not much doubt that the "coal barons" would take advantage of the situation and advance the cost of coal to the highest point "the traffic would bear." If farmers want coal at a reasonable price they must take good care of their wood-lots and increase their capacity by setting out more trees, and thereby keep the price of fuel in their own hands and be independent of miners' strikes.

In the Atlantic and Gulf States, from Maine to Texas, including Ohio, Kentucky, and Tennessee, there is enough mountainous, waste land, if properly taken care of, and protected from devastation by forest fires, to supply all the inhabitants of the United States east of the Rocky mountains with an abundance of wood for all purposes.

In addition to supplying wood for lumber, fuel, railroad ties, mine props, fences, wood pulp, etc., woods furnish an agreeable wind break for the comfort of the families, the cattle, and the benefit of the crops, and fruit trees. They prevent the too rapid melting of the snow, and the too rapid evaporation of the snow water and rains from the surface, and enable more of it to sink into the ground to supply the springs, wells and mill streams in the vicinity. The more rain and snow water that can be got into the ground in the spring of the year, the better for the crops in dry weather. The water in the ground is the farmer's main dependence in a drouth, although the night dews are of more benefit to the crops than is generally supposed. It is the dew (as well as capillary action) that saves the crops in a dry time. All farmers know that frequent cultivation of the surface soil in a drouth, produces moisture from somewhere, and no doubt part of it is condensed from the air, and part supplied from moisture in the ground.

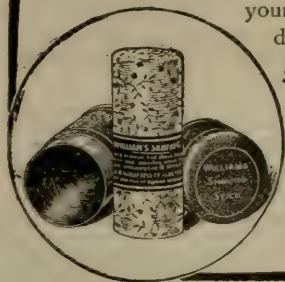
J. W. INGHAM.

Orange County, Va., Jan. 19, 1906.
I cannot afford to farm without the
Southern Planter. R. O. CATE.

Williams' Shaving Soap

Suppose your dealer *does* make a few extra pennies by recommending an inferior shaving soap!

What good does that do you? It is your face that suffers—not the dealer. Insist upon Williams'.



Send 4c. in stamps for a Williams' Shaving Stick, (Trial Size.)

(Enough for 50 shaves.)

Williams' Barbers' Bar, Yankee, Mug, Quick & Easy Shaving Soaps and Williams' Shaving Sticks.—Sold everywhere. Address,

THE J. B. WILLIAMS COMPANY,
Dept. A, Glastonbury, Conn.

MONTVIEW JERSEYS.

We have for immediate Sale bull calves sired by

Forfarshire, Marrett's Flying Fox, and Flying Fox's Rex,
three of the best Imported Jersey Bulls in America. Also several magnificently bred Heifers of the Golden Lad and St. Lambert type. Prices reasonable.

MONTVIEW BERKSHIRES. MANOR FAITHFUL.

According to Geo. F. Weston, THE BEST BOAR THAT COULD BE FOUND IN ENGLAND by Biltmore Farms—heads our herd. He sold for \$615.00 and weighs 1100 pounds in show condition.

HER MAJESTY.

Is among our Imported brood sows. THE COUNTRY GENTLEMAN pronounced her THE BEST SOW IMPORTED BY BILTMORE FARMS and W. R. Harvey, Manager of Filston Farms, Maryland, writes that she is "The best Imported Berkshire sow in America."

If you want a great brood sow or boar, let us book your order for February pigs of above mating.

MONTVIEW STOCK FARM, (Carter Glass, Owner).
BOX 513, LYNCHBURG, VIRGINIA.

The Grove Stock Farm



Holstein Friesian Cattle.

Berkshire Hogs.

Barred Plymouth Rock Cockerels.

GOOD STOCK AT REASONABLE PRICES.

I have recently added to my Berkshire Herd the Imported Boar, GLENBURN CATCH, 84794. You are sure to want some of his get.

N. & W. and So Ry.

T. O. SANDY, Prop. Burkeville, Va.

MORVEN PARK.

The Property of WESTMORELAND DAVIS, Esq.

Large White Yorkshires.

LARGE WHITE YORKSHIRE PIGS from prize winning families for sale. Herd headed by imported boar, "Holywell Huddersfield" No. 450 (A. Y. C.), second prize at Yorkshire Show, England 1904. These pigs are the English Bacon breed: they are prolific breeders, economical feeders, and hardy of constitution. During the month of August the two farrowing sows, imported Sweetest Polly (A. Y. C.), gave birth to 17 pigs, and the sow imported Holywell Empress (A. Y. C.), gave birth to 14 pigs, and in December 1905, Holywell Czarina, 20th. farrowed 17 pigs. Orders will now be received for boars and sows from some of these and similar litters.

Reg. Guernsey Cattle.

REGISTERED GUERNSEYS—Herd headed by imported Top Notch, 9023 (A. G. C. C.), a son of Imported Itchen Beda advanced Reg. No. 136, assisted by Mainstays Glenwood Boy, 7607, A. G. C. C. (son of Jewell of Haddon), advanced Reg. No. 92. This herd is rich in the blood of Mainstay, Rutla's Daughter, Imported Honoria (Guernsey Champion, first prize at St. Louis), the Glenwood, Imported May Rose and imported Masher families. Bulls only for sale.

Dorset Horn Sheep.

DORSET HORN SHEEP.—Flock headed by the Imported Ram, "Morven's Best," No. 4132 (C. D. C.); first prize at the English Royal 1904.
Orders now received for Fall born ram lambs.

Flocks and herds may be viewed by appointment.

Address

LIVE STOCK DEPARTMENT, MORVEN PARK,
LEESBURG, LOUDOUN CO., VA.

POLAND-CHINAS

The Big Kind and the Prize Winning Kind.

Pigs, Boars and Bred Sows for sale.

Herd boars now in service are D's Corrector, 98157, a superb individual bred by Winn & Mastin of Kansas, and a half brother to the Senior Champion Boar at the St. Louis World's Fair. Half interest in the sire of D's Corrector 98157 sold for \$2,500.00. My other herd boar Big Jumbo Vol. 27 O. P. C. R., was sired by the 1100 lb. hog, PERFECT 1 AM, 50777 and out of the 700 lb. sow, Lady P. Sanders 79040. Big Jumbo was bred by W. S. Powell of Kansas, and I believe will make a thousand pound hog at maturity.

Mammoth Prolific Seed Corn and White Leghorns Eggs for sale.
Satisfaction guaranteed or stock may be returned at my expense. References and testimonials furnished.

J. F. DURRETTE, Birdwood, Albemarle Co., Va.



LOCAL CO-OPERATION AMONG FARMERS.

Editor Southern Planter:

It is with pleasure and profit that I read the Southern Planter, as it makes its regular visit every month, as it is a fair exponent of all the various interests connected with farm life. I thought I would jot down a few things I have been thinking about and which will interest at least a part of your farming constituency, providing you can make any good use of it. I read some time ago in the Times-Despatch an article on immigration, and I note that steps are being taken to advance immigration from Europe to Virginia.

This has been—to my way of thinking—the proper way to solve the labor question here, as it has been proved to be in the North-west. Our agricultural commissioner, Mr. Koerner, I see is trying to solve the problem, and has been corresponding with the authorities in Europe about this. I note especially that he has been writing the Lord Mayor of London about the advisability of inducing the idle population of London to immigrate to this State. Now, I do not want to criticize Mr. Koerner, but the class of people mentioned I very much doubt the advisability of bringing here.

They are as a rule, entirely ignorant of rural affairs and would, in most cases, prove most helpless as farm laborers while they might answer very well in mines and factories.

The Northwestern States have been very successful in the class of people they have received from the old world, as the bulk of the immigrants have come from the rural districts. This kind of people are generally law-abiding, and, in a great part, God-fearing, and the first thing they look for after landing here is how they can get to own a little place of their own, to call home.

Now, I think that the best way would be to send competent men to the different countries from which the people are desired, men who know something of the people they are sent to, to go into the rural districts and

BILTMORE FARMS

R. F. D. No. 2, Biltmore, N. C.

THE HIGHEST STANDARD

JERSEY BULL CALVE'S

BOTH AMERICAN AND ISLAND TYPE.

Also young Berkshire Boars and Sows

of the best conformation and breeding for sale at all times.

Write for circulars and price lists. Bargains.

Address, BILTMORE FARMS,

R. F. D. No. 2, Biltmore, N. C.



Edgewood Stock Farm.

DORSET SHEEP.

The first fruits of the flock arrived in October this year. We never took more pains in mating and we must have better ram lambs than ever before. As long as we deserve your trade, we shall expect it. The Dorset is coming right into its own in Virginia. If you are in the lamb business you must have Dorset blood. We will book your orders right now for Spring delivery. With best wishes for the breeders of the golden hoof,

Sincerely,

Greenbrier, Co., Maxwelton, W. Va.

PLANTER'S ENGINES

No other power gives such all round satisfactory service as steam. A line of engines and boilers specially adapted to the needs of farmers and planters is

The Leffel

They take but little space, are famous for efficiency, quick steamers, last many years and cost little for repairs. Many styles from 8 h. p. up, include Upright, Portable, Horizontals on skids or for walling in, engines mounted on boilers or with separate bases, etc. Don't buy any power until you have sent for our book, "Power Economy and Efficiency."

THE JAMES LEFFEL & CO., Box 154, Springfield, Ohio.





ARE YOU READY FOR HARVEST

How about it?

Old Mother Earth, the sun and the showers, the dews and the winds are doing and will do their part to produce the wheat and oats and rye and barley that go to make a bountiful harvest.

Are you doing your part?

Are you getting ready to harvest the crop after it is grown?

Do you know how you will cut your grain?

Are you sure you will harvest it to the best advantage—with the least loss of grain, the least waste of time, the least trouble and worry and expense?

These are mighty important questions, for a large share of your profit depends upon them.

It's not too early to begin to think about them.

With high priced land and high priced labor, you need to get every cent from every acre you cultivate.

Help will be scarce and expensive; therefore, you need a harvesting machine that will save you the most labor.

Harvest days are few; therefore, you need a harvesting machine that will save you the most time.

Grain is worth money; therefore, you need a harvesting machine that will save you the most grain.

You can't afford to run risks.

You can't afford to take chances.

And you don't have to.

Take an hour or two, now, before you get too busy and talk to any agent of the International Harvester Company of America, and find out about the International line of harvesting and baling machines for 1906.

You'll be interested whether you buy or not.

.....

Buying a machine of any kind for use on the farm is not as simple a matter as it may seem.

You can "size up" a farm and know pretty accurately how much an acre you can afford to pay for it, but unless you are a mechanical expert you can't judge a machine in the same manner.

You have to take other things into consideration. For example:

You need to know something about the design—the mechanical principles—how the machine works.

You need to know something about the materials used in it.

You need to know something about the skill used in its construction.

You need to know something about the responsibility of the man behind it and about the machine's reputation.

The International Harvester Company line of machines for 1906 will satisfy you on these points—and on every other point that you may bring up.

.....

Bigness is not necessarily a merit in itself.

If you're buying a horse you don't care very much whether the man who raised it, raises one colt a year or 500.

But you know that the man who makes a specialty of horse breeding is more likely to raise a hundred good colts, than is the man who goes at

improvement and every device that mechanical genius can contrive will be employed in their line.

2nd.—The materials are right. By cooperation they are able to own, control and operate their lumber camps, their own saw mills, their own coal and iron mines, their own coke ovens, their own steel mills, relieving them of the necessity of depending upon the uncertain and fluctuating steel markets, coal markets, lumber markets, etc., for their raw materials, and insuring them at all times an abundance of materials which they know to be right. These are added reasons for the superiority of these harvesting machines.

3rd.—The workmanship is right. The demand for these six leading makes of harvesting machines enables their manufacturers to maintain manufacturing plants of the highest efficiency and to employ workmen of the highest skill-factories and workmen which could not by any possibility be maintained to supply a small demand.

4th.—Their reputation is right. The fact that so many farmers cannot be persuaded to buy any other—the fact that so many farmers continue to buy them—the fact that they are considered the standard wherever grain is grown in every part of the world is sufficient indication of their reputation and their reliability.

.....

You probably need one of these harvesting machines. You cannot afford to begin harvest with a machine that is liable to break down and cause you several days' delay. You cannot afford to use a machine that loses a few stalks now and then and a whole sheaf here and there, for a little leak like that eats into your profits at a surprising rate.

Go to the dealer now, and get which ever catalogue you want. If you don't know an International Dealer—write to us for the name and address of one nearest you.

it in a hit-and-miss, haphazard manner.

It's the same way with farm machines.

You don't care whether a manufacturer makes 1,000 or 100,000 of them, just so the machine satisfies you.

But there's this to take into account: The first harvesting machine was largely an experiment.

For fifty years inventors and manufacturers continued to experiment, making changes and improvements, adding this and taking away that, until finally a half-dozen harvesters began to stand out head and shoulders above the others.

Why do you suppose that was? HOW did it happen that the Champion, the Deering, the McCormick, the Milwaukee, the Osborne and the Plano increased in popularity and sales so much more rapidly than the hundred and one other harvesting machines that have been put on the market at various times in the past 50 years?

There is only one reason for it. They met the demands of the farmer, and satisfied his needs.

In the expressive language of the day, "they made good." They are better today than ever before; they do better work and give greater satisfaction.

And here are the reasons:

1st.—The mechanical principle is right. The manufacturers of the Champion, the Deering, the McCormick, the Milwaukee, the Osborne and the Plano, by co-operation are able to include in their respective machines every device, every invention, every mechanical principle yet discovered that tends to make a harvesting machine *do better work*.

By co-operation they are able to maintain such experimental shops as the world has never seen before, making certain that every im-

International Harvester Company of America, (INCORPORATED) Chicago, Illinois.

International Line—Binders, Reapers, Headers, Header-Binders, Corn Binders, Corn Shocks, Corn Pickers, Huskers and Shredders, Corn Shellers, Mowers, Hay Tedders, Hay Rakes, Sweep Rakes, Hay Loaders, Hay Racks, Hay Balers, Kuflo Grinders, Gasoline Engines, Pumping Jacks, Manure Spreaders, Weber, Columbus and Bettendorf Wagons, Binder Twine.

interest those who are willing to immigrate to come to Virginia. There are thousands upon thousands of acres of waste land here that might be sold to these people very cheap and on easy terms. Two things would be gained—the improvement of vacant land—thus increasing taxable property and furnishing good labor for the farm.

I also want to call attention to the "Virginia Peninsula Produce Exchange," which has been organized in the last three or four months, and is now fully prepared for the coming season's business. Its headquarters are at Williamsburg while it aims to include in its sphere of work the whole peninsula from Old Point to Richmond. Some \$2,500 of stock has already been subscribed and paid in and officers elected and installed.

We have got very favorable contracts with leading fertilizer factories whereby thousands of dollars will be saved to the members. Barrels and packages will also be contracted for, thus cutting down the expense of raising and marketing the crops, while the main object is better markets.

The Exchange has been copied largely from the Eastern Shore Exchange which has had phenomenal success the last few years.

I may at some future time, have more to say about the workings of the Exchange.

M. O. ELTON.

James City Co., Va.

MOTHER ANTELOPE'S INSTINCT.

Her Provision for her Young a Wonderful Instance of Nature's Providence.

From H. H. Cross's "How the Antelope Protects Its Young" in the March Century.

The manner in which the mother antelope protects her young until they are old and strong enough to join the full-grown bands in their wanderings is an interesting and wonderful instance of Nature's providence. These little creatures live in an open country infested by all kinds of enemies, and especially prowled over by the coyote, the gray wolf and the timber wolf, which subsist upon the young of all kinds of animals; yet the mother can easily protect her babies from the fiercest of these marauders. The enemy most dreaded is the soaring eagle.

There is a variety of cactus, a prickly plant, which grows in great abundance all over the Western plains, which furnishes her the means for this protection. Horses, cattle, buffalo, and, in fact, all animals know the danger of treading on this plant. It grows in large patches, some four or six inches in height above the ground, and forms a thick mat, varying in breadth from the size of the top of a man's hat to many feet. It is in the center of one of these patches that the female antelope prepares a place of safety for her young. The thorns of this cactus,

FOR EMERGENCIES AT HOME And for the Stock on the Farm

NOTHING EQUALS



SLOAN'S LINIMENT

The Great Antiseptic
Price, 25c., 50c. and \$1.00.

Dr. EARL S. SLOAN,
615 Albany St., Boston, Mass.

FOREST HOME FARM

Has for sale a few

BERKSHIRE BOARS

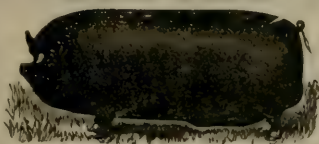
Ready for service; also several

Gilts of Superior Breeding.

PIGS in Pairs and Trios.

Address,

PURCELLVILLE, VIRGINIA.



WALTER B. FLEMING, Proprietor of the Bridle Creek Stock Farm, Warrenton, N. C.

We POSITIVELY GUARANTEE to breed and ship the very best strains of thoroughbred registered **LARGE ENGLISH BERKSHIRE** Hogs for LESS MONEY than any other firm in the U. S., the superiority of our stock considered. Send us your order and we will satisfy you both in price and stock.

EVERGREEN FARMS

Offer at reasonable prices, 2 high bred

Registered Jersey Bulls,

AGED 10 and 12 Months; also

S. C. B. LEHORN Eggs for hatching, 75c. per 15.

Full Blood Berkshires From Royal Blood.

W. B. GATES, Prop.

Rice Dep. Prince Edward County, Virginia.

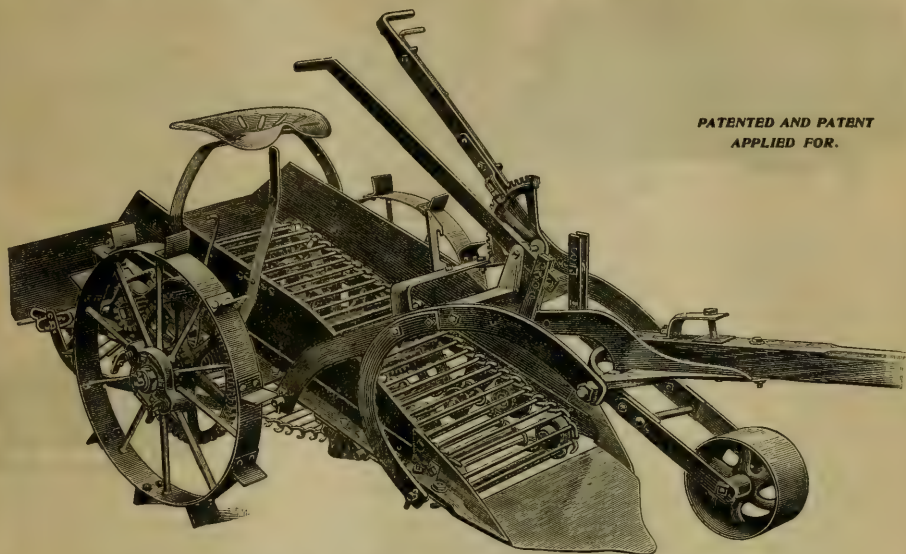
DUROC-JERSEYS

are at the top and there to stay. Write us and we will give you some hog facts that will convince you.

We have the blood of ORION, OHIO CHIEF (recently sold for \$2,000.00), SENSATION, SURE WINNER, TOPNOTCHER, PROTECTION, KANT-BE-BEAT, LONGFELLOW, WASHINGTON KING, GO-FORWARD, FAYETTE CHIEF, and HIGH CHIEF, besides a string of others of the leading Western winning strains, THE VERY CREAM OF DUROC-JERSEY BREEDING. Our prices are low and the quality is high. We can save you money in the purchase price and in expressage. Write at once and we will give you some DUROC FACTS.

LESLIE D. KLINE, Vauluse, Va.

Hallock's O. K. Elevator



PATENTED AND PATENT
APPLIED FOR.

POTATO GROWERS

Let Us Tell You how one man in every potato growing locality where we have no agent may have one of our **TWO HORSE ELEVATOR Diggers Free.** We also wish to send you such a grade of **FARMERS' TESTIMONIALS** as you never saw before.

BAYBORO, N. C., July 5, 1905.

Messrs. D. Y. Hallock & Sons,

York, Pa.

Gentlemen:

The elevator potato digger referred to in our last letter is the Dowden potato harvester manufactured at Prairie City, Iowa. We are very much interested in an elevator digger. We are fully convinced that it is the only successful digger on the market. If your digger is right, and you care to deal with us, we are willing to buy of you. The digger we mention above we know is all right, but has rather much weight and the draft is heavy, but we are convinced that it will pay us well to use the elevator.

Yours very truly,

Cowell, Swan & McCotter Co.

BAYBORO, N. C., Nov. 16, 1905.

Messrs. D. Y. Hallock & Sons,

York, Pa.

Gentlemen:

We have tried the O. K. digger and find it works very satisfactorily. If the digger does as well with our spring crop, where the tops are frequently very rank, we shall, indeed, think we have struck a bonanza in the way of a digger. We want the agency in this section for 1906.

Yours very truly,

Cowell, Swan & McCotter Co.

If you dally and wa you will come in too late. For this most WONDERFUL OFFER goes with the first order only.

Box 802.

D. Y. HALLOCK & SONS,

York, Pa.

WOODSIDE BERKSHIRES.

Everything Shipped on Approval.



while very poisonous and terribly painful to every other animal, for some reason are almost harmless to the antelope. The cactus may lacerate her legs making them bleed freely but neither the stickers nor their poison remain; while other animals seldom bleed but retain the poisonous stickers in their wounds until they become malignant sores causing excessive swelling of the limbs and very great and long-continued suffering.

When the antelope has selected her patch of cactus backing away a few feet she will make a running jump, bounding high in the air and alighting in the middle of the patch with all four feet close together, the hoofs pointing downward. Then, springing out again and repeating this operation until she has chopped the roots of the cactus plant to pieces, she loosens and clears a space large enough for standing room. She then will enlarge it by pawing and digging with her sharp hoofs. Here she gives birth to her young in undisturbed security, knowing that she can leave them in comparative safety during the day and return to them at night to give them suck. Should it be in a locality where eagles abound, however, the mother does not venture far away, as the soaring eagle often swoops down on the young, taking them away if she is not there to do battle for their lives.

The Jamestown Exposition Company is anxious to adopt some official emblem which will suggest to any imaginative person the subject of their exposition.

Jamestown was the first English-speaking settlement in America. It might be called the parent of the colonies.

From this first village others grew until there was a real colony of Virginia instead of a nominal one.

The Atlantic Coast east of the Alleghenies was dotted with villages and filled with colonies which grew to such proportion that, combined, they were able to overthrow the domination of England in 1776.

All of our pigs old enough to ship are sold, and we are now booking orders for Jan. and Feb. delivery, for pigs sired by our two great boars, LUSTRE'S CARLISLE OF BILTMORE, No. 7267, and MASTER LEE OF BILTMORE, No. 7269, and out of sows weighing from 500 to 600 lbs. each, in only fair breeding condition. LUSTRE'S CARLISLE was 2 years old on June 4th, weighs 730 lbs. and is as active as a 6 months old pig. He is sired by ROYAL CARL ISLE No. 6531, dam TOPPER'S LUSTRE, No. 5422. MASTER LEE was 1 year old on June 4th and now weighs 625 lbs. He is sired by LOYAL LEE 2ND, OF BILTMORE, No. 6532, dam IMPORTED DANESFIELD MISTRESS, No. 7237. LOYAL LEE 2ND is undoubtedly the champion Berkshire boar of the world, having more prizes to his credit than any other boar living or dead. DANESFIELD MISTRESS is a daughter of DANESFIELD HUNTRESS, No. 6317, who has an unbroken record of first place at all the leading English shows, with one exception, and then being defeated by her daughter DANESFIELD MISTRESS. We consider MASTER LEE one of the greatest young sires in America, and expect to find in the show rings next fall. In order to show our confidence in what we offer and insure satisfaction to our customers, we will ship pigs ON APPROVAL, and if they are not entirely satisfactory in every respect, you can return them at OUR EXPENSE. In other words you can see the pigs before you buy. Can always furnish pigs not akin. We are offering a few choice gilts bred to MASTER LEE for April farrow. For full particulars, Address, WOODSIDE STOCK FARM, R. S. Farish, Prop., Charlottesville, Va.

Did You Ever Hear of a Hog Life Preserver?

There is only one on the market.

For 30 YEARS HAAS HOG REMEDY has been tested WITHOUT FAILING. It is conceded to be the BEST HOG MEDICINE ON EARTH!

If you have never used this Remedy, send for a 30 DAY TRIAL order and test it yourself.

Thrived and Fattened Rapidly.

We feed your Remedy to our hogs regularly and they fatten and thrive nicely. Disease was in our community and we were the only parties who prevented its appearance among our hogs, all of which we attribute to the good qualities of your Remedy.

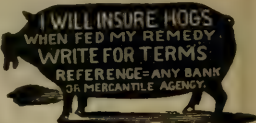
W. F. RAPIER & CO.

Owensboro, Davies Co., Ky.

Any reader of this paper who will remit direct for a can or half can of the Remedy at prices quoted and will give same a fair trial for 30 days, will have his money refunded if, at the end of that time he is not satisfied that his hogs have been benefited, that the Remedy will do all that is claimed for it and that it is the best hog medicine he has ever used.

Have you read "Hogology"? This valuable book contains the insurance proposition, and much other valuable information. Free to readers of this paper.

PRICE OF REMEDY: 25 lb can, \$12.50; 12 lb can, \$6.50; packages, \$2.50; \$1.25, and 50c. Express paid on cans and half cans.



DR. JOS. HAAS, V. S., Indianapolis, Ind.

POLAND CHINA

:—AND:—

TAMWORTH PIGS

entitled to registration; also bred Sows at reasonable prices.

APPLY TO

J. C. GRAVES, Barbourville, Orange Co., Va

No. 12 Double Wheel Hoe



No. 4 Combined Seed and Wheel Hoe



Planet Jr. Tools

are known and used the world over, because they make Planting, Hoeing and Cultivating easy; rob the work of its

breaking drudgery, and make it interesting, rapid and profitable.

There is a Planet Jr. for every need. Our new 1906 catalogue describes and illustrates Seeders, Wheel Hoes, Harrows, Riding Cultivators (one and two-row), Sugar Beet and Orchard Cultivators, etc.—fifty-five tools in all.

No. 4 Planet Jr. is the most popular combined tool made. It combines in one implement, a perfect seeder and a splendid wheel hoe, weeder, cultivator and plow. Seed can be sown in continuous rows or in hills 4, 6, 8, 12 or 24 inches apart. It is easily changed from Drill to Wheel Hoe, and is useful every day of the season and at every stage of the garden work. With this implement the farmer or gardener can do all the work in his small crops in the best manner at double quick speed.

No. 12 Double Wheel Hoe will enable you to hoe every day two acres of onions or any similar crop and do it faster and better than three men with hand hoes. It runs either atride or between the rows, kills all weeds and leaves the soil in splendid condition. It is also useful for opening and closing furrows. OUR 1906 CATALOGUE shows many garden scenes at home and abroad that will interest you. Receive and get it. We mail it free on request. A. L. ALLEN & CO., Box 107X, Philadelphia, Pa.

FOR THE STOCK FARMER

"INTERNATIONAL STOCK FOOD"

For sixteen years "International Stock Food" has been the universally recognized leader as a very high class medicinal preparation to be fed in small amounts with the regular grain allowance in order to secure better digestion and assimilation, so that each animal would obtain more nutrition from all grain eaten. It is prepared from powdered medicinal Roots, Herbs, Berries and Seeds and purifies the blood, tones up and permanently strengthens the entire system and cures or prevents many forms of disease. Scientific authorities prove that the average farm animal only digests about 65 per cent of the average kinds of farm feed. The every day use of "International Stock Food" will cause animals to digest from 85 to 95 per cent. In this way "International Stock Food" is a great grain saver as it only costs ten to fifteen cents per month to feed it to a horse, fattening steer or cow and only five to eight cents per month to feed it to a hog. Saves \$10 in grain for each horse, steer, etc.

At the time of our last war we paid the United States Government \$20,000 a year tax, because "International Stock Food" was a high class medicinal preparation, while many Other Kinds were allowed to sell without paying the war tax because they find a statement, with the Government, claiming that they did not use any medicinal ingredients and did not claim any medicinal results. This explains why the market is flooded with cheap and inferior preparations. We have always claimed that you cannot afford to use any preparation of this kind except on a medicinal basis because without medicinal qualities they would not be worth medicinal prices. Any Trustful Agricultural Chemist Will Tell You The Same Thing. You eat medicinal ingredients (salt, mustard, vinegar, pepper, etc.) see United States Dispensary, with every mouthful of your own food and science proves that you thrive better for their use. It is just as reasonable to expect your stock to thrive better by using small amounts of "International Stock Food", every day, which contains the same Roots, Herbs, Berries and Seeds that animals eat freely when running wild. M. W. Savage, who originated "International Stock Food" is a practical farmer and stock breeder and also a Trustful and he positively guarantees that the use of "International Stock Food" will always be beneficial for stock in any condition and that it can even be taken into the human system in perfect safety. That is our guarantee. "International Stock Food" will make a clear profit of \$350.00, over its cost, in fattening hogs or steers. If a scale test fails to prove this you do not want a cent of your money. Our business principle is that you must use you more money than you can make without feeding "International Stock Food" and we take all the risk. Could you possibly ask for a fairer proposition? "International Stock Food" will make a clear profit of \$350.00, over its cost, in fattening hogs or steers. It will make Calves, Colts, Lambs or Pigs grow amazingly during every month of the year and will keep them growing rapidly even during the cold weather. It will make cows give from one to three more quarts of rich and very healthful milk every day and keeps cows healthy so that tuberculosis will be prevented and your cows will raise extra vigorous calves. It cures and prevents scours in calves. "International Stock Food" will make brood sows raise more pigs and they will have stronger vitality. By purifying the blood and stimulating the system it cures and prevents Hog Diseases and keeps pigs, hogs and fattening hogs healthy and gives rapid growth. "International Stock Food" has an extraordinary sale to hog breeders to prevent Hog Cholera, and only costs 25¢ per Feed for One Cost.

At about 12 cents per month, we positively guarantee that its every day use will save from \$7.00 to \$10.00 per year in the feed of any work horse, fattening steer, etc., and if a practical test does not prove this, the use of "International Stock Food" will not cost you a cent.

"International Stock Food" will keep horses healthy, strong, vigorous, fat, and glossy. It will cause your work, driving or coach horse to do more work. Your brood mares will raise better colts. "International Stock Food" is fed every day to all of our Four World Famous Champion Stallions: Dan Patch 1:55 1/4, Crescendo 2:24 - Directum 2:45 1/4 and Arion 2:51 1/4. Also to our Stallions Roy Wilkes 2:26 1/4, Buttonswood 2:47 - Directum, Jr. 2:44 and to our one hundred brood mares and their colts on our "International Stock Food Farm" of 700 acres, ten miles from Minneapolis. Beware of the cheap and inferior imitations and substitutes that flood the market. No chemist can separate and name all of the medicinal ingredients we use in "International Stock Food", and no grammar or must be a Paid Falsifier. In many Bulletins a pretended analysis of "International Stock Food" has been given. We hereby agree to pay anyone \$5.00 in cash if we cannot prove every one of them to be absolutely false and misleading and consequently these Bulletins must be published by institutions having very elastic notions of fairness, honor or truth. They seem to be governed by blind, and often times, malicious prejudice.

Always insist on having the genuine "International Stock Food" and you will have paying testimonials by the largest Stock Food Company in the world and its use only costs 25¢ per Feed for One Cost. It is sold by over One Hundred Dealers on a "Spot Cash Guarantee." If you had our receipt your druggist would have to charge you much less for it. We are bound to put up "International Stock Food" because he is compelled to pay more for ingredients. We buy train loads for spot cash and are the largest users of our ingredients that the world has ever known. Our books are open as proof. We do not make any larger per cent than any average company manufacturing boots, shoes, clothing and other staples. Statements to the contrary are made in utter ignorance of the facts. All correspondence will be answered promptly as we have an office force of 300 people and 150 of them are typewriters. Our office and factory is one of the "great business sights" of the entire country and when in Minneapolis we will be very much pleased to have you call. We have Thousands of Testimonials on file in our office open for your inspection. "International Stock Food" is used and endorsed by over One Hundred High Class Farmers and Stock Breeders and is endorsed by over One Hundred High Class Farm Papers. We refer you to any Bank or Wholesale House in Our City.

DAN PATCH 1:55 1/4 MAILED FREE

We will mail you a Beautiful 6 Color Picture of Dan Patch 1:55 1/4, size 12x26 Free from Advertising and giving all of Dan's records, if you will write about much live stock you own and name this paper.

Largest Stock Food Factory in the World.

Capital Paid in \$2,000,000

International Stock Food Co.,
Minneapolis, Minn., U. S. A.

CATALOGUES.

The catalogues of the various seed and implement houses, carriage and harness companies, in fact, nearly all of the principal manufacturers, are, if anything, more elaborate than ever. The great majority are fine examples of the printers and engravers art and most of them contain a great deal of most valuable information. Our readers should send for these catalogues whether they wish to purchase at present or not as they will be amply repaid for their trouble in reading.

The following have recently come to our table: The large illustrated catalogue of the Elkhart Carriage and Harness Manufacturing Co. This catalogue is splendidly illustrated and well gotten up. This firm has been selling direct to the customer for 33 years and has, as usual, an announcement in another column.

The American Saw Mill Machinery Co., New York City. Their neat and attractive copyrighted catalogue gives full information and illustrations of its

The Everlasting Tubular

Guaranteed not to break or bend. Furnished with rings or hooks for trace attachment. Sample orders sent to responsible parties on trial.

Steel Plow Doubletree

Send for our No. 8 Catalogue for 1905.

Contains everything of interest to Dealer or user of Whiffletrees.

PATTERN No. 105 EQUIPPED WITH FORGED TRIMMINGS.

Also manufacturer of Farm Wagon Doubletrees, Neck Yokes and Singletrees.

Pittsburg Tubular Steel Whiffletree Company,
SOLE MANUFACTURERS
PITTSBURG - - PENNSYLVANIA.

The YORK Improved Weeder

Every farmer should own a YORK IMPROVED WEEDER. It is the greatest machine on the market for getting rid of weeds without hurting the crop. It has every advantage of efficiency and economy over all other weeder - Square Spring steel teeth, round points, narrow in the body of great strength, break back, self-cleaning. Frame made of strong flexible steel; handles and shafts are adjustable. Size, 7 feet; weight, 100 pounds. Sangles Corn Planters and Grain Drills always on hand. Write at once for our Free Catalogue.

SPANGLER MFG. CO., 504 N. QUEEN ST., YORK, PA.

well-known line of saw mill machinery. This firm is a regular advertiser of ours.

"How the telephone helps the farmer" is the title of the handsome 50-page catalogue of the Stromberg-Carlson Telephone Mfg. Co., Rochester and Chicago. In addition to being the general catalogue of this company's telephones, it gives a great deal of valuable information as to conducting and organizing a local farmer's exchange. This firm has been advertising with us for several years. Look up their announcement.

ST. NICHOLAS FOR MARCH, 1906.
The March St. Nicholas will be issued Wednesday, February 28th. Sheet are requested.

Fancy having for a pet a beautiful Virginia deer; which was quite one of the family, teasing for tid-bits like a spoiled child, and enjoying a walk like a pet dog, and which recognized and followed its human friends for several reasons. "Acteon" was this deer's name; and the pretty story of the animal's finding and adoption is told by Ernest Harold Baynes in the March St. Nicholas.

When little Ellen was taken to visit an Indian encampment she lost all her baby heart to a cunning papoose, which, in her eyes, was an unwontedly large and fascinating doll. Innocently enough, and very sweetly, Ellen begged for the papoose, and the Indian mother, in blissful ignorance of English, said, "Yuh." And so Ellen carried off her live doll, to the astonishment of her family and the consternation of the Indians. The story is told for readers of the March St. Nicholas by David MacGregor Cheney.

There are two delightful child portraits in the March St. Nicholas—"Margaret," a beautiful head by M. D. Page, reproduced from a Copley print, and Louise L. Heustis' interesting portrait of that interesting boy, Gibbs Mansfield, the young son of Mr. and Mrs. Richard Mansfield.

Ralph D. Paine has another of his football stories in the issue; the serials grow in interest; and there is full measure of story and sketch, rhyme and picture.

Bedford County, Va., Dec. 19, 1905.
I find that the Southern Planter contains so much material to be digested that it will be good economy for me to pay for two copies in order that both myself and manager may keep posted.
W. D. CRITCHERSON.

Chesterfield County, Va., Dec. 20, 1905.
I value the Southern Planter very highly and do not like to miss a copy.
J. W. JENKINS.

Spottsylvania County, Va., Dec. 30, 1905.
I like the Southern Planter very much.
A. B. LEWIS.



Washed in 1 minute

Count the pieces—notice the difference—and you'll understand why the one who has to do the cleaning prefers the simple Sharplies Tubular.

There are other advantages just as much in favor of the Tubular. Write today for catalog V-250—it tells you all about the gain, use, and choice of a separator.

The Sharplies Separator Co.

West Chester, Pa.

Toronto, Can.

Chicago, Ill.

A Big Difference

One Minute's Washing as compared to at least fifteen. Wouldn't you like to save at least fourteen minutes twice a day? **One minute** with a cloth and brush cleans the absolutely simple Sharplies Dairy Tubular Cream Separator bowl shown in the upper picture. It takes fifteen minutes to half an hour with a cloth and something to dig out dents, grooves, corners and holes to clean other bowls—one of which is shown in lower picture.



Washed in 15 to 30 minutes



Steel Hay Tedder is the right tool at any time. It does its work right and does it rapidly. Stirs the hay in the proper way. No matter how wet or how heavy the hay, it kicks it up as no other tool can, much easier than doing it by hand, and allows the sun to cure it quickly and evenly so that all the goodness is retained. **The Johnston**

Steel Hay Tedder

works without jar or strain, with least possible friction—no two forks touch the ground at the same time. The steel angle and steel pipe construction make **The Johnston** light, compact, durable, neat—just the machine you'll like to use and ought to buy. Our Tedder Folder tells why—describes it fully and shows how it works. Our 1906 catalog illustrates the complete Johnston line of "Not in the Trust" farm tools. Write today for both. They are free.

The Johnston Harvester Co.,
Box 311
Batavia, N. Y.



MATTHEWS' "NEW UNIVERSAL" GARDEN TOOLS

6 TOOLS IN ONE

Seeder, marker, hoe, rake, plow, cultivator. Single or double wheel. Adjustments easily made. For planting and all kinds of cultivation.

Send for FREE BOOKLET of valuable information for planting and cultivating the garden and full description of these implements.

AMES PLOW COMPANY 56 MARKET STREET, BOSTON, MASSACHUSETTS

6 Styles Seeders

Open Furrows, deep or shallow, straight, curved, mowed.



Double or Single Wheel Hoe

Cultivator, Plow, Rake. Changes quickly made. Cultivate between or outside the rows. Dig deep, any width.



Note High Arch and Plant Guards. Best Oak Handles on all Tools.

For Sale by GRIFFITH & TURNER CO., BALTIMORE, MD.

A neat Binder for your back numbers can be had for 25 cents. Address our Business Office.

THE GROWTH OF LAND TENANCY IN MISSOURI.

A tendency towards the centralization of land in the hands of a few individuals is one of the modern economic developments in this State to which public attention has not been as sharply directed as the importance of the movement demands. One man in Atchinson Co. owns 46,000 acres, the Scully lands in Bates county comprise about 50,000 acres, the Runter interests in Southeast Missouri include 35,000 acres, Rankin is said to own 36,000 acres, the Stone Land Company has 35,000, the Deering Harvester Company owns immense tracts of unknown extent in the most fertile section of southeast Missouri, and there are many other holdings equally large.

George B. Billis, Secretary of the State Board of Agriculture, calls it "an unquestionable tendency towards a tenancy system similar to that which prevails in the countries of Europe." He thinks, however, that it has not reached sufficient proportions to cause alarm for the immediate future.

H. J. Waters, Dean of the Missouri Agricultural College, discerns the same movement:

"If the present tendency towards the purchase of real estate by non-residents is continued," he says, "we are at the beginning of a tenant system with all of its attendant disasters. A tenant system of farming will seriously retard agricultural progress, interfere with the improvement of rural schools and farm homes, and affect adversely the intelligence and prosperity of the State. Let the American farmer become a tenant, and in a few generations European conditions will be duplicated on American soil; the farmer will be a peasant without spirit or ambitions. Unquestionably, the present tendency is in this direction. How it will end no one can foresee."

This is the natural tendency, as land increases in value. The rich capitalist wants a permanent investment for his money. He wants security first. Interest is a secondary matter. 3 % will rent the land to a man who needs man who makes the interest on a small working capital keep him.—Ed.

Commencing with this issue, our readers will notice the advertisement of the Hart Pioneer Nurseries, of Fort Scott, Kas., advertising high grade Nursery stock. This is an old established firm, having organized their business in a small way in 1865, until at the present time their nurseries comprise over 600 acres and is one of the largest in the west.

They make a specialty of the small order business, and sell their stock direct to the planter at wholesale prices, which saves the consumer all agent's commission.

They advertise their stock to be strictly first-class, pure bred in every respect and guaranteed true name.

I Want to Write You a Personal Letter

—Will You Send Me Your Name and Address on a Postal Card?

I want to tell you how Split Hickory Vehicles are sold direct to you from our factory—saving you about 40% on the cost of your vehicle.

I want to tell you of our thirty day free trial offer.

I want to tell you of our legal, binding guarantee for two years.

I want to tell you how we were able to build up the biggest mail order vehicle business in the world and of the great reputation we have made on the Quality of our work.

I want to tell you about Split Hickory—and why it is far superior to any other material used in Vehicle construction.

I want to tell you all about our new factory; how the great demand for our Split Hickory Special \$50.00 Top Buggy has forced us to equip an entire factory for its exclusive manufacture.

I want to tell you how we select every piece of material that goes into this buggy—and I want to explain, in detail, the 100 points of merit in the construction of our Split Hickory Special.

I want to tell you why it is to your advantage to order from us a buggy made to your order—a genuine, trade-marked Split Hickory Buggy—rather than to buy one from a factory making cheap buggies under contract to be sold by mail order houses. Such buggies may seem low in price—but in reality they are the dearest buggies a man can buy.

Our 1906 Split Hickory Vehicle Book is just off the press.

I take great pride in the fact that it is the finest vehicle and harness catalogue ever issued by anyone. It contains 180 pages and gives full description and price of over 100 styles of genuine Split Hickory Vehicles ranging in price from \$35 up.

Will you let me send you this letter?

Will you let me send you this 180 page book free?

It doesn't matter where or from whom you are thinking of buying a buggy—it won't do any harm to get my personal letter and our catalogue before you buy. You will then know what your buggy ought to cost you.

Split Hickory Vehicles are used everywhere. We have thousands of testimonials from every state.

Let me send you this letter, and this new book. Address,

H. C. PHELPS, President,
The Ohio Carriage Mfg. Company,
Station 294 Cincinnati, O.



"Paints that stay Painted."

PAINT is what you need. Do you know that PAINT will preserve and improve your property? PAINT will give your property a prosperous appearance. PAINT will increase the value of your farm. We have PAINT on hand for everything—PAINT for roofs and barns. LYTHITE COLD WATER PAINT. Carriage and wagon PAINT. Our "Standard" house PAINT is ready-mixed, and for the money no PAINT can surpass it. Write us for PAINT prices and color cards.

JOHN W. ATKINSON & CO.,
Richmond, Va.

Don't Buy a Vehicle of any kind until you get our New Vehicle Catalog

We Ship on 30 Days Trial
We Don't Ask for Any Money with Order

Our Terms Are the Most Liberal Ever Made



CUT THIS AD OUT send it to us and we will mail you free the most complete catalog of vehicles and harness ever printed. The cars and very large, the descriptions are complete and ship. All vehicles shipped direct from our factory. Prices lower than our astonishingly low price and the most liberal terms ever made.

MARVIN SMITH CO. CHICAGO, ILL.

SPREADING TEST 30 DAYS



FREE

YOU can use this American Manure Spreader a month **FREE** to prove it as represented. Upon receipt of your order, we will ship the Spreader promptly and *prepay the freight*. Use it 30 days on your farm. If you don't find it all we claim—send it back at our expense. *The test won't cost you a cent.*

We make you this offer because we know what the American Manure Spreader will do. **We know it will pay for itself.**

You get this unusual opportunity because we make more high grade Manure Spreaders than any other concern in the world.

That's why we can give you this chance to test our Spreader in your own way in your own fields.

American Manure Spreaders are made right.

We are old established manufacturers. We buy everything in big quantities. Thus we always get the very best at rock bottom prices.

Our men are experienced. They have been building Manure Spreaders for many years.

This means the best possible machines at the lowest possible cost.

TOO BUSY TO GROW.

A small office boy, who had worked in the same position for two years on a salary of \$3 a week, finally plucked up enough courage to ask for an increase in wages.

"How much more would you like to have?" inquired his employer.

"Well," answered the lad, "I don't think \$2 more a week would be too much."

"Well, you seem to me a rather small boy to be earning \$5 a week," remarked his employer.

"I suppose I do. I know I'm small for my age," the boy explained, "but to tell you the truth, since I've been here I haven't had time to grow."

He got the raise.

MITES AND HAWKS—TWO CHICKEN ENEMIES.

In his lectures before the students of the Agricultural Department of the University of Missouri last week, T. E. Orr, Secretary of the American Foultry Association told methods of combatting mites and chicken hawks that might easily be used by every Missouri housewife.

Mites, he says, may be gotten rid of by spraying the chicken house with a mixture of one part crude carbolic acid and eight parts carbon oil. This mixture he recommends in preference to mite exterminators sold by traveling agents.

Hawks, he claims, may be kept out of the poultry yard by attaching bright pieces of tin, six by ten inches, to the trees and poles surrounding quarters, by strings two feet long, so that the wind will make the bright metal dance in the sunlight.

Amherst County, Va., Feb. 5, 1906.
The Southern Planter is exactly what I need.
F. GOEPHART.

We sell *direct to you* because we are able to give you much better value for your money and a better understanding of the machine than any one else could. We always keep in close touch with our customers. They tell us just what our Spreaders are doing, and we keep the standard of our machines so that every penny you pay us comes back to you in full Manure Spreader value. *We do not belong to any Trust or Combination. We are an entirely Independent Concern.*

The American Manure Spreader of today represents the highest development in Agricultural Implement building.

It is absolutely modern and up-to-date.
It is a sensibly and practically built machine.

Nothing about it is exposed to unnecessary strain. There is no complicated mechanism to get out of order. Every part is made extra strong and all are substantially put together.

The American Manure Spreader doubles the value of every bit of manure you put on your land. It breaks up and pulverizes it thoroughly. The distribution is uniform. Every foot of your land gets its share, and the manure is in such shape that it mixes easily with the soil.

After using the Spreader **A Month FREE**, you can take time to pay for it.

It may earn its cost before you remit us any money.

Send for particulars of our generous proposition today.

You will be well pleased if you do.

If you tell us the number of acres you cultivate, and how many horses, cattle, sheep and hogs you keep, we can give you the Government statistics as to value of your manure crop.

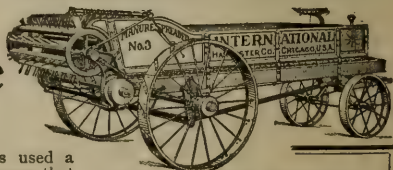
Write to us today. Do it now!—before the matter has a chance to slip your memory. Address—

AMERICAN HARROW CO.

6230 Hastings Street

Detroit, Mich.

Double Manure Value.



EVERY man who has used a manure spreader knows that it doubles the value of the manure pile.

Those who have not had that experience will be convinced with the first trial.

It is not because the manure spreader puts more manure on the land, but because it so tears apart, disintegrates and makes it fine that it all becomes available as plant food.

Of course it takes the right kind of a spreader to do this work perfectly. The I. H. C. Spreader fits the case exactly.

It is not only an unusually strong, well built machine, thus being durable and continuing long in service, but it has features peculiarly its own.

For instance: It is the only manure spreader having a vibrating rake in

front of the beater or cylinder which levels the load as it passes backward towards the spreading mechanism.

You know, of course, that perfect spreading can only result when the load is level.

This spreader is entirely controlled and regulated in all its working parts by a single lever. It will spread from three to thirty loads per acre, and the change necessary to produce these desirable results can be made instantly while the machine is in motion.

Power is applied to the apron of the I. H. C. Spreader from both sides—both rear wheels. This insures an even, steady feed and no strain, side draft or breakage.

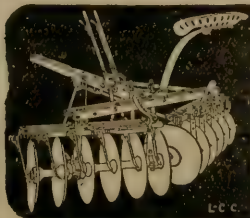
The I. H. C. Spreader is equipped with broad faced steel wheels which are best, because they are at once the lightest and strongest.

It will spread any and all kinds of manure in any condition, and can be equipped with special attachments for spreading in drills and broadcasting lime, compost, ashes, cottonseed hulls, land plaster, etc.

Made in several sizes to suit all classes of work and every section.

Go to the International Local Agent and look it over, get and read the catalogues, or write for further information. It will pay.

INTERNATIONAL HARVESTER CO. OF AMERICA, CHICAGO, U. S. A.
(INCORPORATED)



SYRACUSE DISC HARROW STEEL FRAME

It pays to make a perfect seed bed. No harrow better suited to the purpose than the one here shown. Flexibility of gangs, double jointed hinge and vertical and horizontal motion, make perfect working on uneven ground and in rough places. Independent operation of gangs, setting at different angles, is a valuable hillside feature. All controlled from driver's seat. Individual scraper for each disc, operated by foot treadle. Oil tempered steel discs, either round or cut. Inquire of your dealer or write to us. We'll supply full information. Catalog free.

Syracuse Chilled Plow Co., Syracuse, N. Y.



JOHNSTON ALL STEEL RAKE

Durability and ease of operation are two desirable features you get in the Johnston All Steel Rake. Durability because where the strain and wear is greatest, there it is strongest. The head and frame where most strain comes are made of angle steel. Wheels are steel with cast hubs and round staggered spokes. It's all steel but the tongue or shafts—

No Warp, No Shrink, No Split

Teeth do clean work without scratching; they are long, flat-pointed, interchangeable. It's an easy rake to operate because it is nicely balanced. Runs light, pleases man and horse. A special rake folder gives all its good features and tells why the Johnston Rake is best to buy. A postal brings it free and our 1906 catalog illustrating the complete Johnston line of "Not in the Trust" Farm Tools. Write for it today. THE JOHNSTON HARVESTER CO., BOX 211, BATAVIA, N. Y.



REPORTS.

U. S. Department of Agriculture, Washington, D. C. Office of the Secretary, Circular 15. Adulteration of Kentucky blue grass and orchard grass seed.

Bureau of Animal Industry, Bulletin 78. Texas fever (otherwise known as Tick fever, Splenetic fever, or Southern Cattle fever), with methods for its prevention.

Biological Survey, Circular 52. Directions for destroying pocket gophers.

Bureau of Entomology, Bulletin 55. The rearing of Queen Bees.

Bulletin 56. The Black Hills beetle. Office of Experiment Stations. Experiment Station Record vol. xvii. No. 6.

Bureau of Forestry, Bulletin 63. The natural replacement of white pine on old fields in New England.

Forest Service, Circular 36. The Forest Service. What it is and how it deals with forest problems. Bureau of Soils, Bulletin 31. Calorimetric Turbidity and Titration methods used in soil investigation.

Farmers Bulletin, No. 238. Citrus fruit growing in the Gulf States.

Farmers Bulletin 242. An example of model farming.

Illinois Experiment Station, Urbana.

Ill. Bulletin No. 104. Abstract Field experiments and observations on insects injurious to Indian corn.

Indiana Experiment Station, Lafayette, Ind. Bulletin 110. Corn improvement.

18th Annual Report of the Experiment Station.

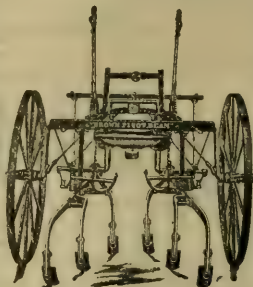
Kansas State Board of Agriculture, Topeka, Kas. Report for the Quarter ending Dec., 1905. The Corn book.

Kentucky Experiment Station, Lexington, Ky. Bulletin 120. Some tree and wood infesting insects. Cabbage snakes.

Bulletin 121. Commercial fertilizers.

Minnesota Experiment Station, St. Anthony Park, Minn. Press Bulletin 24. Seed grain.

Two Horse RIDING and WALKING CULTIVATORS.



As much a necessity to-day as the Double Shovel was twenty-five years ago.

Farm labor is scarce and improved machinery is more in demand.

Our goods are thoroughly tested by years of use and no line has a more favorable reputation on the market.

Ask your Dealer about them or write us direct and we will send circulars.



BROWN MANUFACTURING CO., ZANESVILLE, OHIO.

HENING & NUCKOLS, General Agents, Richmond, Va.

Buy only the genuine FARQUHAR Keystone Corn Planter



DON'T BUY ANY OTHER

Until You Investigate the Merits of a Machine That Has stood the Test of Time.

Plant corn, beans, peas, etc., without cranking a grain or musing a hill. Drops seed in drills or in hills at any distance. Distributes any kind of fertilizer in any quantity desired, with absolute safety from injury to seed. Send for handsome new catalogue of Corn Planters, Grain Drills, Cultivators, Spring Tooth Harrows and other farm tools; also Engines, Rollers, Saw Mills and Threshing Machinery. We manufacture the largest and most complete line of farm machinery and implements on the market. It will be to your advantage to write to us before buying anything in this line. Farquhar Machinery awarded more Gold Medals at St. Louis than any other.

A. B. FARQUHAR CO., Ltd., York, Pa.



Lightning Portable and STOCK Scale



All above ground. Steel frame, only 8

inches high. Octagon levers. Tool steel

bearings. Compound beam. Most accurate

and durable. Write for catalogue and price.

KANSAS CITY HAY PRESS COMPANY, 162 Mill Street, Kansas City, Mo.

Pennsylvania Experiment Station, State College, Pa. Bulletin 75. Forage and soiling experiments, 1904.

South Carolina Experiment Station, Clemson Coll., S. C. Bulletin 116. Methods of spraying cucumbers and melons.

Bulletin 117. A comparison of wheat bran and cotton seed meal for milk production.

The Clemson Agricultural College. Extension work. Dairy farming. Virginia Experiment Station, Blacksburg, Va. Annual Report of the Experiment Station. This is a fine record of work done under difficult conditions and with limited means. Every Virginia farmer should read it and he will then insist that the Station has the help needed to extend its work.

Bulletin 159. Soil inoculation with artificial cultures. Virginia Weather Service, Richmond, Va. Annual Summary, 1905.

POISON.

As far as shaving soap is concerned, common soap ought to be marked poison. Shaving is a special process and demands a special soap. If your face has been poisoned with cheap soap, if it burns and smart and itches, stop using the poison and use shaving soap—Williams' Shaving Soap will cool and smooth your face and make shaving pleasant. The J. B. Williams Co., Glastonbury, Conn., offer in another column of this paper to send you a free trial sample. "For the sake of your face" read their ad.

NO MORE SMOKEHOUSES.

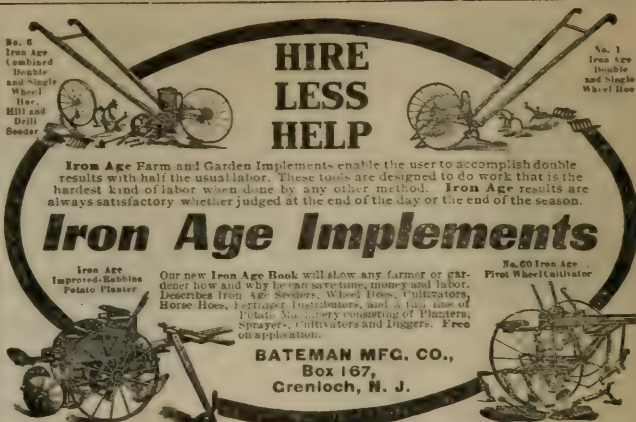
Like the old time grain cradle, the smokehouse is primitive, out of date. The new way to produce the most delicious, palatable, and healthful smoked meats is by simply applying directly to the meats, a pure, clean liquid called "Krauser's Liquid Extract of Smoke."

This substance is the true extract of hickory wood, and is prepared only by the well-known firm of E. Krauser & Bro., of Milton, Pa. This liquid not only imparts to hams, bacons, fish, etc., the true smoked meat flavor, but prevents the ravages of insects and other pests.

More explicit information than can be given in such small space as this, can be obtained from the makers, E. Krauser & Bro., by simply addressing them at Milton, Pa.

CORDUROY TROUSERS A BADGE.

Students of the Agricultural College of the University of Missouri have adopted corduroy trousers as a badge of their department. Practically all the students of the College, from short course commonly known as "short horns" to seniors, wear trousers made of this serviceable material.



HIRE LESS HELP

Iron Age Farm and Garden Implements enable the user to accomplish double results with half the usual labor. These tools are designed to do work that is the hardest kind of labor when done by any other method. **Iron Age** results are always satisfactory whether judged at the end of the day or the end of the season.

Iron Age Implements

Iron Age Combined Harrow and Single Wheel Plow
Iron Age Improved Rabbits Potato Planter
No. 1 Iron Age Double and Single Wheel Plow
No. 60 Iron Age First Wheel Cultivator

Our new **Iron Age Book** will show any farmer or gardener how and why he can save time, money and labor. Describes **Iron Age** Seeders, Wheel Hoes, Cultivators, Horse Hoes, Potting and Transplanting, and a full line of Potato Machinery consisting of Planters, Sprayers, Cultivators and Diggers. Free on application.

BATEMAN MFG. CO.,
 Box 167,
 Grenloch, N. J.



"JONES" FENCES & GATES

last longer than others for the same reason that slate roofs outlast shingles—they're much better to start with. There's no economy in buying a "cheap" fence that is worthless after five winters when you can get the "Jones" that will

Wear 20 to 30 Years.

Big coiled spring wires; heavy stays; locks that do not slip; good galvanizing. Easily put up to stay. Our Catalog No. 8 will help you decide what to buy—contains practical fence pointers. Sent free upon request.

INTERNATIONAL FENCE & F. CO.,
 698 Buttes Ave., Columbus, Ohio.

Agents Wanted—Hustlers can make honest money selling "Jones" fences and gates.

Page Poultry Fence Costs Less



erected than common nettings; fences poultry in and stock out; requires no boards and but few posts; never sags, bags, or buckles, and outlasts the posts. Complete description and prices furnished on request. Write today.

Page Woven Wire Fence Co., Box 511, Adrian, Mich.

BROWN FENCE

AN EXTRA HEAVY FENCE
 both strand and stay—No. 9 gauge.
 Thickly galvanized. Best grade steel. We mail free sample for inspection and test. A more substantial, stock-resisting, time-defying fence was never started to posts. We pay freight on 40 rods. Write for book showing 111 styles. **Brown Fence & Wire Co., Cleveland, O.**

SAMPLE FREE

16 to 35 cts. PER ROD DELIVERED

THE BEST INVESTMENT OF ALL

No dollars spent on the farm pay as well and in as many ways as the few it takes to plant and maintain an orchard. It adds certainly ten times its cost if you want to sell the farm. Then it pays its cost in convenience to the housewife; it pays it again in pleasure and again in health. And it pays all these profits not once, but it pays them over and over again every year. In order that no place may lack its fruit, The Continental Plant Co., Kittrell, N. C., are offering at wholesale rates direct to the people first-class fruit trees of all kinds. You will save from half to three-fourths by writing for their catalogue. It is free.

BOOKS AND PAMPHLETS.

Ten Acres Enough. 250 pages. This little book teaches the gospel of intensive culture and careful husbandry on a small truck and fruit farm. It is the record of what has been done by one man and may be done by thousands who in this way may escape the drudgery of city life with its small prospect for the average man for making provision for the evening of life and in its place build up for himself a beautiful country home supplying all the necessities and many of the luxuries of life and enable something besides the home to be put aside for the time when work must cease. Published by the Cultivator Publishing Co., Atlanta, Ga. Price 50 cents. We can supply the book.

The Peanut and its Culture by William N. Roper. This is a booklet of some 70 pages containing much information of value to every one growing or desiring to grow peanuts. The work is essentially practical and based on the actual experience and observation of practical successful growers. Published by The American Nut Journal, Petersburg. Price, 60 cents. We can supply the book.

The American Jersey Cattle Club, 8 West 17 St., New York City, will shortly publish and send free, to all proper parties, a pamphlet of about 100 pages giving the fullest details of the feeding, handling and management of the dairy herd at the St. Louis Exposition with record of the work done by each cow. Every one interested in dairying should send for copy.

It's Only the Rightly Built —Manure Spreader THAT PAYS



Don't get the idea that just any spreader is a good investment. That's a mistake. There are spreaders, some thousands of them, that were so constantly being laid off for repairs that they are never taken out of the shed any more.

Those investments are dead losses,
But if you will investigate you don't need be
bothered with that kind.

How shall you set about finding out?
Well, go into the record. Find out about
the spreader you are thinking of buying.

- what it is,
- what it does,
- what its record has been.

On these three points we invite the fullest investigation of the Success spreader. We think the whole matter is included in them.

What it is. It is the one spreader that literally grew. Every part and feature of it is the result of experience. Nearly 30 years experience in it.

Materials? Largest of all axles—tough, second growth white ash frame—steel pin direct drive

chain—beater steel braced to axle—apron on three series of rollers—harpoon teeth (new feature) to keep beater ends clear—every part made just as experience has shown to be necessary.

What it does. Handles everything of manure kind and all commercial fertilizers, easier and more satisfactory than any other spreader.

Its record. Ask the users. There are a good many thousands of them—nearly as many as all other spreaders combined.

It's the spreader of experience—the one you can get information about by inquiring.

See that you get the worth of your money. You are willing to pay a fair price for the machine you buy. That's the way the Success is sold.

For that fair price you get in the Success a spreader that is known, that has made its own way, that works right—that is durable. Remember the nearly 30 years experience. It ought to count for something.

Our spreader book will help you. It tells the truth and it's free. Write for it.

KEMP & BURPEE MANUFACTURING CO.

BOX 205, Syracuse, N. Y.

JOHNSTON NO

CHAIN DRIVE

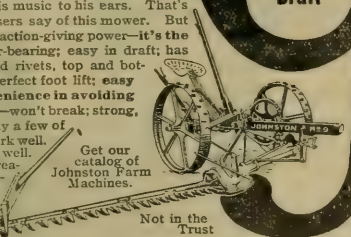
The smooth, easy-running Johnstons Mower No. 19 (chain drive), has a host of warm farmer friends. When a man can sit on his mower and run it all day long on any kind of ground, cutting any kind of grass, down, tangled, or straight, without any bother he certainly appreciates his machine. Its steady clicking is music to his ears. That's just what the army of No. 9 users says of this mower. But there's a reason for the popularity of Johnstons power—it's the chain drive.

It is roller-bearing; easy in draft; has long wood pitman; oval head rivets, top and bottom of knife bar; can't clog; perfect foot lift; easy on man; handy levers—convenience in avoiding obstructions; powerful chain—won't break; strong, durable frame. These are only a few of the reasons why it does its work well.

Get our

Our mower folder is full of reasons you ought to know. Suppose you send for it—it's free.

THE JOHNSTON HARVESTER CO.,
BOX 711 BATAVIA, N. Y.



Not in the
Trust

**Light
Draft.
Even
Draft**



\$10

Two-Horse Corn Planter and Garden Seeder. Drops in blades and drills 18 rows a day.

\$26.00

Calumet Black Rock

Planter with automatic reel and 20 rods wire. Near 1000 ft. drops in 15 min. drills. We challenge the market.



\$15.50

Two section steel land roller, 7 ft. 3 section, 17 ft. oil, 18 ft. 12 in. running strongest best.

PLOWS.

\$1.50 up.

BUY OUR



\$2.78

for the sickle grinder; grinds best at point of time; 6 ft. 6 ft. 16 in. min. With 1 stone 6 ft. sickles, \$2.78. With stones for reeling all kinds of tops, \$3.10.

GET THIS AD OUT



\$1.15

for automatic compressed air two gallon spray pump. Four gallon size, \$2.65. With solid brass tank, \$4.45. Extension hoses for trees extra.



ter irons and books, rope, 5 floor hooks, 3 Wood, steel and cal outfits any lengths.

send it to us and we will mail you

Grand Land Farm, Machinery Catalog

[illegible]

Three Years Experience with Protective Inoculation against Tuberculosis in Cattle, by the Von Behring method, Dr. Strellinger. C. Bischoff Co., 88 Park Place, New York City.

WASHINGTON NOTES.

Hints to Poultry Raisers.

One of the most valuable publications about to be issued by the Department of Agriculture is one by G. Arthur Bell, Assistant Animal Husbandry, Bureau of Animal Industry, entitled "Hints to Poultry Raisers."

In selecting a variety of fowls, it is desirable to obtain only pure-breds, as with these one has a flock of fowls which will produce carcasses and eggs of a much more uniform shape, color and size than mongrels will produce, all of which will aid in finding a ready sale. If one already has a flock of mongrel fowls, and cannot afford to buy pure-breds, he should choose a pure-bred male bird of the breed preferred and mate him with a few of the best mongrel females. This system if carefully followed for a few years, the publication states, will give a high-grade flock that will be practically as good as pure-breds, so far as market conditions for dressed fowls and eggs are concerned.

Choice of a variety will depend largely on the purpose for which the fowls are kept—whether eggs alone, both eggs and meat, or meat alone, is the chief object; whether white-shelled or brown-shelled eggs are desired; and whether sitters or non-sitters are wanted. The pamphlet divides these into the following three classes:

Egg Breeds.—Non-sitters and producers of white-shelled eggs: Leghorns and Minorcas.

General-purpose Breeds.—Sitters and producers of brown-shelled eggs: Plymouth Rocks, Wyandottes, Orpingtons and Rhode Island Reds.

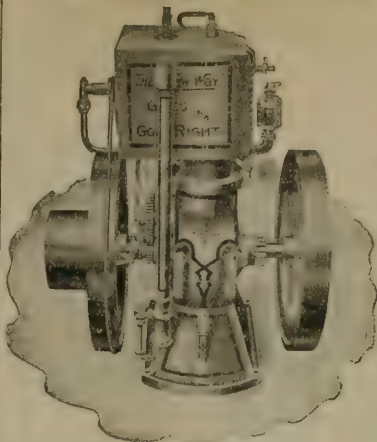
Meat Breeds.—Sitters and producers of brown-shelled eggs: Brahmas, Cochins and Langshans.

Poultry Houses.

In selecting a location for the poultry houses, it is desirable to place them on an elevation having a natural drainage away from the building. A dry, porous soil, such as a sandy or gravelly loam is preferable to a clay soil. As sunlight and warmth are essential to the best success with poultry, the buildings should face the South. A Southeastern exposure is preferable to a Southwestern one, if a direct Southern exposure cannot be obtained. The size of the house will depend almost entirely on the number of birds to be kept. If the birds are kept in flocks of forty to sixty, about five square feet of floor space should be allotted to each hen. The building should be high enough to enable the attendant to avoid bumping his head against the ceiling.

The best house for fifty to sixty fowls is 20x40 feet; front elevation 6½ feet back elevation 5½ feet with

Here is the "New Way" Air Cooled Gasoline Engine.



"THE FAN KEEPS IT COOL."

LLOYD R. PEERY, Eastern Sales Agent.

SIX REASONS WHY

YOU SHOULD BUY IT:

- 1.—No Water Tank to empty and fill daily in freezing weather.
- 2.—No water to freeze and break water jacket or cylinder and thereby cause a large expense for repairs.
- 3.—No water to form lime in the water jacket and obstruct circulation.
- 4.—No cylinder gaskets to leak compress or blow out.
- 5.—No carbureter gasket or carbureter needle valve.
- 6.—The oil from one cup lubricates piston, cylinder and all bearings automatically and with certainty.

The greatest specialty in a gasoline engine for the use of farmers that is on the market.

Write for our Special Introductory Proposition to first purchaser in each county.

Agents Wanted Everywhere. Exclusive Territory. Write for Catalog and Testimonials.

STEPHENS CITY, VIRGINIA.

SPRAY NOW

It will soon be too late.

100 Per Cent. Dividend.

ON THE INVESTMENT IN A

DEMING
SPRAY PUMPCan be realized by any
FRUIT GROWER.

Best Iron.
Best Brass.
Best Construction.
Simple.
Durable.

Sydnor Pump & Well Co., Inc.

Dept. B.

Richmond, Virginia.

COW PEAS

WE ARE HEADQUARTERS

Can supply BLACK, CLAY, WHIPPOORWILL, NEW ERA, SOUTHDOWN, MIXED.

Write us your wants and we will quote you. Orders have prompt attention at lowest market rates.

WALLERSTEIN PRODUCE CO., Richmond, Va.

double pitch roof of unequal span. The roof if it is shingled, should have not less than one-third pitch. If roofing paper is used, one-quarter pitch will answer. In the front or south wall there should be placed two windows about 1 foot from the top and 3 feet from the ends; 8 by 10 inches is a good-sized pane to use in a twelve-light sash, making the sash about 3 feet 9 inches high, and 2 feet 5 inches wide. A door 2½x6 feet may be made in one of the end walls, and also a small door in the front wall for the fowls to pass in and out of the building.

The roost platform should be placed in the rear of the house extending the whole length. The platform should be about 3 feet wide and 3 feet above the floor, and the perches should be placed about 8 or 10 feet above the platform. The nest should be placed against the end of the house on one side the door or under the roost platform, and should be darkened. Several small boxes for shell, grit, beef scraps etc., should be placed against the wall about 12 inches above the floor. If cement or wood floors are used, a dust bath should be provided for the fowls.

The Feeding of Hens.

In order to obtain eggs, it is necessary to have healthy, vigorous stock, properly fed. In order to do their best hens should be fed grain food animal food and green food. They should be fed enough to keep them in good condition but not over-fat and they should be induced to take plenty of exercise. No set rules can be given for feeding, as conditions vary, and there are different methods of feeding different breeds.

A good system to follow for winter feeding, the pamphlet continues, is mash once a day and grain scattered in the litter twice a day. The mash may be fed dry or slightly moistened. When fed dry, it is usually put into a trough or hopper hung against the wall and the fowls allowed access to it at all times.

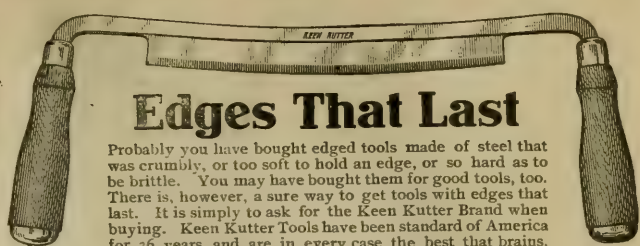
The mash fed by the Maine Experiment Station is as follows, in the proportion indicated:

200 pounds wheat bran; 100 pounds corn meal; 100 pounds wheat middlings; 100 pounds linseed meal; 100 pounds gluten meal; 100 pounds beef scrap.

Another mash may be mixed as follows, in the proportions indicated: 100 pounds corn meal; 100 pounds ground oats; 100 pounds wheat bran.

The Feeding of Young Chickens

Young chickens should be fed a little at a time and often. If they are given ground food alone, there is a great danger of over-feeding. Very good results may be obtained by the feeding entirely of cracked grains from the time the chickens are hatched un-



Edges That Last

Probably you have bought edged tools made of steel that was crumbly, or too soft to hold an edge, or so hard as to be brittle. You may have bought them for good tools, too. There is, however, a sure way to get tools with edges that last. It is simply to ask for the Keen Kutter Brand when buying. Keen Kutter Tools have been standard of America for 36 years, and are in every case the best that brains, money and skill can produce. They are made of the finest grades of steel and by the most expert tool makers. As a complete line of tools is sold under this brand, in buying any kind of tool all you need remember is the name

KEEN KUTTER

The draw knife shown here is an example of the excellence of Keen Kutter Tools. It has a nicety of balance and "hang," which has never been successfully imitated, and it is made of the best steel ever put into a draw knife. In all the years that we have sold this tool we have never heard of one defective in any way.

Yet the Keen Kutter Draw Knife is no better than all other Keen Kutter Tools.

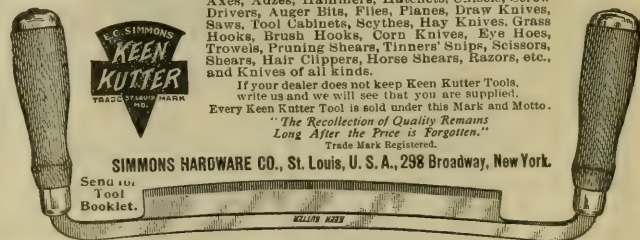
The Keen Kutter Line was awarded the Grand Prize at the St. Louis Fair, being the only complete line of tools ever to receive a reward at a great exposition.

Following are some of the various kinds of Keen Kutter Tools: Axes, Adzes, Hammers, Hatchets, Chisels, Screw Drivers, Auger Bits, Files, Planes, Draw Knives, Saws, Tool Cabinets, Scythes, Hay Knives, Grass Hooks, Brush Hooks, Corn Knives, Eye Hoes, Trowels, Pruning Shears, Tinners' Snips, Scissors, Shears, Hair Clippers, Horse Shears, Razors, etc., and Knives of all kinds.

If your dealer does not keep Keen Kutter Tools, write us and we will see that you are supplied. Every Keen Kutter Tool is sold under this Mark and Motto.

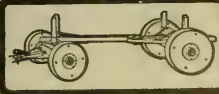
"The Recognition of Quality Remains Long After the Price is Forgotten."
Trade Mark Registered.

SIMMONS HARDWARE CO., St. Louis, U. S. A., 298 Broadway, New York.



Send for
Tool
Booklet.

BUY THE WAGON THAT'S MADE IN SAGINAW



The Handy Wagons made in Saginaw are made by men who know how a handy wagon should be made and who make it as it should be. That's why they last longer, run easier, carry heavier loads and give satisfaction. Farmers know the advantage of a slow wheel, wide tire, light draft wagon—but there's more than one kind—the good and bad.

To get the best, buy the

FARMER'S HANDY WAGON

made in Saginaw. We make them of the most durable material, hardwood, clear selected stock and first-class metal constructed on the most approved method. They are sold at a reasonable price, and built for a life-time of service. Our free literature gives detailed description and tells why they are the best low-down farm wagons made. Write for it. Address

FARMER'S HANDY WAGON CO., SAGINAW, MICH.

Also makers of Handy Hay and Stock Racks and Handy All-Steel Frame Silos.
Branches at Kansas City and Des Moines.

DON'T BUY GASOLINE ENGINES

all one-cylinder engines: revolutionizing gas power. Costs Less to Buy and Less to Run. Quickly, easily started. No vibration. Can be mounted on any wagon at small cost—portable, stationary or traction. Mention this paper. SEND FOR CATALOGUE. THE TEMPLE PUMP CO., Mrs. Meagher & 16th Sts., Chicago. THIS IS OUR FIFTY-SECOND YEAR.

UNTIL YOU INVESTIGATE

"THE MASTER WORKMAN"

a two-cylinder gasoline engine superior to

til they reach maturity. There are on the market many prepared chick feeds, consisting of different mixtures of cracked grains, which are very suitable. After the chickens are five or six weeks old, the prepared chick feed may be dropped, and the chickens fed on cracked corn, cracked wheat, hull-ed oats, etc.

If the chickens cannot get grass, some kind of green feed should be provided. Lettuce and cabbage are very good for this purpose. Some kind of meat should be provided, such as green cut bone or meat scraps. Finely cracked grit should be kept in a box where the chickens can help themselves at all times. Water should be provided from the start and should be placed in such a dish that the chickens cannot get into it and get wet.

For American Truffles.

What are truffle oaks? A hybrid between an oak tree and a truffle? No; only the oak on which the orchid-like truffle grows. The Agricultural Department has recently received a large consignment of these truffle oaks, and prospective truffle cultivators of the United States will receive some 600 seedlings as stock with which to begin business. Already, some twenty-five seedlings have been supplied to growers in California. These are of the variety of truffle oak, native to France, where is produced the best variety of this highly-prized edible fungus.

This attempt is the third made by the Department of Agriculture to introduce truffle growing into the United States, the other two have proved unsuccessful.

The high price of truffles enables them to be grown in comparatively small quantities with considerable profit. In the district of France most famous for their cultivation, the industry is the principal support of the rural population, and the district, from having been a poor and barren one, is now exceptionally rich and prosperous.

"The effort to introduce the truffle into the United States," said an official of the Bureau of Plant Industry, under whose supervision the experiment is being made, "is undoubtedly fraught with much difficulty. The proper soil and climate are hard to determine without considerable experimentation, and the growers must acquire that expert knowledge which has made the French industry a success."

"When the seedling oaks have attained sufficient size, it will then be necessary to introduce into the roots the truffle spores, which can only be obtained from fresh truffles. Then the question arises as to how these fresh truffles can be obtained."

"Of course it is easy enough to import prepared and preserved truffles, but the truffles must be fresh in order to obtain the spores with which to inoculate the oaks, and this will be our hardest work. Nevertheless, we will undoubtedly get them."

Nitrate of Soda

Cotton Planters Feed Your Plants and Make them Flourish

NITRATE OF SODA is the sure way to cultivate healthy, heavy bearing plants. Cotton planters have made tests for us in various localities with satisfactory results. We want more tests made on COTTON and will send

Absolutely Free

to the first planters who apply, enough Nitrate of Soda to let them try it. Write at once as this offer is necessarily limited. To the twenty-five planters sending the best results from these trials, we offer as a prize, Prof. Voorhees' book, "Fertilizers," a most valuable work for every planter, containing 327 pages handsomely bound. "Food for Plants," a book no planter should be without, sent free upon request.

NITRATE PROPAGANDA, 12-16 John Street, New York

DEMING Power Spraying Outfit

A light, simple, practical gasoline engine outfit that sells at a reasonable price. Experienced fruit growers pronounce it by all odds the best power sprayer made. Entirely self-contained, ready for attaching hose, and easily mounted on wagon bed or tank wagon. Just the thing for the large operations of farmer, orchardist or park superintendent.

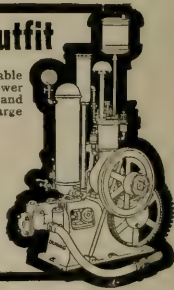
Send For Free Catalogue

of all sprayers, *Barrel, Bucket, Knapsack, Hand, Field, Etc.* Our line of sprayers is known everywhere for their efficiency and nice adaptability to all uses. Be sure to investigate before you buy.

THE DEMING COMPANY, 190 DEPOT ST., SALEM, O.

A Deming outfit solves your spraying problems.

SYDNOR PUMP & WELL CO.,
Southern Agents, Richmond, Va.



W. A. Miller & Son,
1016 Main St. Lynchburg, Va.

—DEALERS IN—

Seeds, Fertilizers and Wool.

SEEDS. We sell every kind of seed for field and garden of best quality, and as low as same qualities can be bought in any market.

FERTILIZERS. We sell Fertilizers for every crop, under our own brands. All who have used our High Grade Tobacco Guano, Corn Grower, Wheat and Grass Fertilizers, Pure Raw Bone, and High Grade Acid Phosphate, analyzing from 14 to 16 per cent, pronounce them the best they have used.

WOOL. We buy all the year round, and PAY THE HIGHEST MARKET PRICES. Parties wishing to purchase will find it to their interest to see us before buying.

As is well known, truffles grow upon the roots of certain varieties of the oak tree and are discovered through the agency of pigs which possess the instinct to locate them and are driven in their vicinity. Without doubt, the truffle is the king of fungous edibles, the mushroom being but poor and vapid in comparison. To the epicure, it is something much to be desired while to the farmer with a wood lot, it would mean a very highly paying industry.

Grass Seed Adulterations.

Secretary Wilson is again after seedsmen who are again practicing adulteration of seeds. Recently, he has caused to be examined, under the law, 251 samples of seed of Kentucky bluegrass and 265 samples of orchard grass, obtained in open market. Of these, 41 samples of seed of Kentucky bluegrass were found to be adulterated with seed of the inferior Canada bluegrass, while 133 samples of orchard grass seed were found to be adulterated, the seeds most commonly used for the purpose being English rye-grass and meadow fescue, the value of neither being more than one-third to one-half that of orchard grass seed. That the adulteration of orchard grass is very general is evidenced by the fact that samples containing adulterants were obtained from 24 States.

While Canada bluegrass is imported into the United States in quantities varying from 600,000 to 700,000 pounds per annum, it is used only occasionally in this country, and it is evident that the bulk of the seed imported is mixed and sold as Kentucky bluegrass.

In accordance with the provisions of the act of Congress authorizing the Secretary of Agriculture to publish the results of tests of seeds, Secretary Wilson has issued a pamphlet giving the names of the seedsmen who sold the lots found to be adulterated, together with the percentages of adulteration in each lot.

No Tax on Leaf Tobacco.

The Committee on Ways and Means of the House of Representatives has agreed upon a favorable report on the compromise bill removing all internal revenue tax from leaf tobacco. At present, internal revenue laws impose a tax on leaf tobacco in case the producer places it in the hands of an agent for sale, but permits the grower personally to sell his own tobacco without tax. Under the measure agreed upon the sale of leaf tobacco will be as unrestricted as the sale of any other product. Tobacco growers endeavored to have the bill extend exemption from tax to twist tobacco, but the Committee would not include anything in the measure but the natural leaf.

GUY E. MITCHELL.

Augusta County, Va., Dec. 21, 1905.
The longer I read the Southern Planter the better I like it.

O. A. COINER.

PERUVIAN GUANO

A Complete Natural Manure.

We have imported during the 1904-1905 fertilizer season over 30,000 tons of this splendid natural manure, a large part of which was sold in the Southern States.

PERUVIAN GUANO is a natural manure, free from all chemical treatment, and not only contains a high percentage of plant food in the choicest forms, but a larger quantity of organic matter which improves the condition of your land.

We are importing this Guano from two deposits at Lobos de Tierra. That from the older of the deposits contains a high percentage of phosphoric acid, while the Guano from the more recent deposits runs high in ammonia.

The following analyses represent about the average from these two deposits:

Cargo Ex. S. S. Coys.	Cargo Ex S. S. Cells
9.30%.....Ammonia	3.55%
2.28%.....Potash	4.30%
9.50%.....Phosphoric Acid.....	22.40%
28.02%.....Organic Matter	14.36%

PERUVIAN GUANO, being a natural product, every cargo from the same deposit varies slightly, but the above analyses represent average cargoes. We shall be glad to supply exact guaranteed analysis of each cargo and to refer buyers to our nearest agent, or, if we have no agent in their locality, quote them prices f. o. b. at their nearest shipping point.

We have just gotten out a 76-page book on the "home mixing" of fertilizers, entitled PLANT FOOD PROBLEMS.

This book contains full information in regard to the various materials used as fertilizers; gives the formulas best suited to different crops and tells the farmer how he can buy the raw materials and mix his fertilizers at home, thereby saving at least five dollars a ton.

A request by postal addressed to our Charleston office will place this book in your hands.

Peruvian Guano a Superior Base for Home Mixtures.

Peruvian Guano is a material that commends itself strongly as the best possible base for home mixtures. By its use, the necessity for using a large number of materials in compounding is entirely done away with. Such materials as ground bone, tankage, dry ground fish, dried blood, sulphate of ammonia, etc., are not needed since the Peruvian Guano supplies all the plant food elements furnished by these materials, in choicest forms, and already intimately mixed and combined by natural processes.

Fertilizer Materials for Home Mixing.

In addition to Peruvian Guano we import the following materials which we sell in original bags, under guaranteed analyses, and ship directly from the vessel on which they arrive, thereby being able to quote the consumer practically the same price the fertilizer manufacturer has to pay.

Nitrate of Soda,	Nitrate of Potash,	Sulphate of Potash,
Muriate of Potash,	Kainit,	Basic Slag.

Trusting that you will decide to at least give PERUVIAN GUANO a trial and inquire our prices on other fertilizer materials before placing your order, we are, respectfully yours,

THE COE-MORTIMER COMPANY
33 BROAD STREET, - - CHARLESTON S. C.

GOOD HOUSEKEEPING.

Chicken Soup.

Prepare a grown fowl, an old one is best, as for roasting. Put it on in a covered kettle with three quarts of water, and let it cook slowly until the meat drops from the bone. Take out the chicken and chop it. To the soup add two large tablespoons of rice and let it boil for an hour, then add a cup of cream, or rich milk, a heaping tablespoon of butter creamed with two level tablespoons of flour, season with salt, pepper, chopped parsley, and, just before taking from the stove, add the yolks of two eggs beaten with a half cup of cold water. Some of the chicken can be returned to the soup, but it is just as well to keep it for croquettes.

Chicken Croquettes.

Boil a large chicken until tender and done, having a very little salt in the water. When it is cold, run it twice through the meat chopper and season with salt and pepper, two teaspoons of grated onion, a tablespoon of chopped parsley, a tablespoon of lemon juice, a pinch of celery seed. In another pan have a teacup of rich milk, in which you must dissolve well three large crackers, but the pan into a double boiler and let it cook until as thick as rich cream. If you happen not to have the crackers in the house, you may use a heaping tablespoon of cornstarch, add to this a tablespoon of butter and the yolk of an egg beaten very light. Remove from the fire and pour it over the chicken. Mix well and set on one side to get cold. Then make into balls or cones, and roll in beaten egg or cracker crumbs and fry in deep fat until a good brown.

Scalloped Eggs.

Boil as many eggs as you will need and slice them into about five slices each, arrange them in a dish with alternate layers of bread crumbs, salt, pepper and small pieces of butter until the dish is full, let the crumbs form the last layer, then pour over it rich milk to come nearly to the top, and bake brown. This is good for any meal.

Stuffed Eggs.

Boil ten eggs and very carefully remove the yolks, cutting the whites smoothly around the middle. Rub the yolks with two tablespoons of butter while they are hot, add three mustard spoons of made mustard, one teaspoon of sugar, pepper, salt, a few drops of onion juice, half a teaspoon of celery seed, two tablespoons of vinegar or chopped cucumber pickle and have as much ground tongue as you have egg, form this into a paste and return to the whites. These may be left in halves or joined together again and tied with baby ribbon, serve one on each plate for luncheon or tea, or



Increase Your Yields
Per Acre"

Head High Tobacco

can easily be raised with regular, even stands, and of the very best grade, for which the highest prices can be gotten at your warehouse, or from tobacco buyers if you will, a few weeks before planting, liberally use

Virginia-Carolina Fertilizers.

Use them again as a top dressing, or second application. These fertilizers are mixed by capable men, who have been making fertilizers all their lives, and contain phosphoric acid, potash and nitrogen, or ammonia, in their proper proportions to return to your soil the elements of plant-life that have been taken from it by continual cultivation. Accept no substitute.

Virginia-Carolina Chemical Co.

Richmond, Va.
Norfolk, Va.
Durham, N. C.
Charleston, S. C.
Baltimore, Md.
Atlanta, Ga.
Savannah, Ga.
Montgomery, Ala.
Memphis, Tenn.
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W. T. HOOD & CO., OLD DOMINION NURSERIES, RICHMOND, VIRGINIA.

Wholesale and Retail Growers of

High Grade Nursery Stock

Descriptive catalogue and price list on application.

Office: Chamberlayne & Rennie Ave. Nurseries: Henrico & Hanover Counties.

BIG PROFITS in Farm Poultry

If you raise it right. Mark the "B" and let us start you right with a new 1904-pattern Standard Cyphers Incubator. "The most modern of the poultry world," "superior in design, more and healthier chicks with less loss than any other or your money back. We mean it 90 days trial. Complete catalogue and poultry guide, 22 pages, sent free if you mention this paper and give address of two near by poultry raisers. Write nearest office.

CYPHERS INCUBATOR CO., Buffalo, Boston, Chicago, New York, Kansas City, San Francisco.



arrange them in a glass dish within a nest of curled parsley.

Tomato Salad.

Scald a can of tomatoes until they will easily go through a fine sieve. Soak a half box of gelatine in a half cup of water and add it to the hot tomatoes. Season with a teaspoon of salt, a little peper, a half teaspoon of onion juice, and mould either in individual molds or in one large one garnished with parsley, and serve with myonnaise or boiled dressing.

Tea Bread.

Two pints of flour, four eggs, beaten, half cup of yeast, a heaping tablespoon of lard and butter mixed, a cup and a half of fresh milk, a tablespoon of sugar. Mix all well together, adding the flour last and set in a warm place to rise. In the summer, this must not be made earlier than 12 o'clock. When risen, beat well and put into a pan, let it rise half an hour and bake quickly, just as you do ordinary rolls.

"Perfect Cake."

This receipt has been given me, and is said to be the "perfect cake," so let us all try it. One cup of butter creamed with three cups of sugar, one cup of milk, in which dissolve one cup of cornstarch. Sift three cups of flour with two teaspoons of cream tartar and one teaspoon of soda four times. Mix the milk and cornstarch with the sugar and butter, beat the whites of twelve eggs as light as possible and add half of them and half the flour, then the other half of the eggs and then the rest of the flour, flavor with bitter almond and bake in a loaf. This is delicious if you add chopped raisins, figs and nuts to half the batter and bake in thin layers, using icing for filling.

Pecan Cake.

Four egsg beaten separately, one cup of butter creamed, with three cups of sugar, two cups of milk, seven cups of flour measured after sifting, one and a half cups of chopped raisins, two cups of chopped pecans, one and a half teaspoons of soda and three teaspoons of cream tartar. Season with cinamon and bake in small shapes, ice with boiled icing flavored with bitter almond.

Tangles.

spoon of salt, mix with the yolks of six spoon of salt, mix with the yolks of six eggs beaten light. If the eggs are large, it may not take all six. Work till the dough is smooth and roll very thin, cut in three-inch strips and slash, plait the strips and fry in boiling fat. Drain the grease off and sprinkle with sugar and cinnamon, or with powdered supar. Pile on a cake basket for CARAVEN.



Fruit Trees 7½c

Why pay two prices for all kinds of nursery stock to cover agents' profits and bad debts, when we, by employing no agents and making no bad debts—selling for cash direct to the people at lowest wholesale rates—will save you half. Twenty-one years experience. 1,000,000 high class fruit trees, 50,000,000 strawberry plants. Special bargains in peach trees. Safe and cheap delivery anywhere in U. S. Catalogue free. Valuable book on fruit growing free to buyers. Cabbage Plants now ready.

Strawberry Plants

\$1.25 per 1000

Write to-day for catalogue. Mention this paper. Address
Dept. E CONTINENTAL PLANT CO., Kittrell, N. C.

Headquarters for Nursery Stock.

WHOLESALE
AND
RETAIL.

We make a specialty of handling dealers' orders.

ALL STOCK TRUE TO NAME.

Apples,	Nectarines,	Pecans,	Ornamental and
Pears,	Cherry,	Chestnuts,	Shade Trees,
Peach,	Quinces,	Walnuts,	Evergreens,
Plum,	Almonds,	Small Fruits,	Roses, Etc
Apricots,			

CALIFORNIA PRIVET, for Hedging.

WRITE FOR CATALOGUE.

AGENTS WANTED.

FRANKLIN DAVIS NURSERY CO., Baltimore, Md.

..ELMWOOD NURSERIES..

—We are growers and offer a fine assortment of—

APPLES, PEACHES, PEARS, CHERRIES, PLUMS, APRICOTS; NECTARINES, GRAPEVINES in large assortments, GOOSEBERRIES, CURRANTS, STRAWBERRIES, HORSE-RADISH, ASPARAGUS, DEWBERRIES, and an extra lot Raspberries. Splendid assortment ORNAMENTAL and SHADE TREES, ORNAMENTAL SHRUBS and HEDGE PLANTS.

EGGS fro B. P. ROCK and BROWN LEGHORN FOWLS at \$1.00 per 13. Also, a few pullets and cockerels of these breeds at \$1.00 each for immediate delivery. Write for catalogue to

J. B. WATKINS & BRO., MIDLOTHIAN, VA.

PREPARED LIME THAT CAN BE DRILLED WITH THE SEED.

We are manufacturing a specially prepared Agricultural Lime, packed in 50 lb. sacks. 200 lbs will go as far as 400 lbs. of ordinary air slaked lime; does not heat the seed; can be drilled with it where it will do the most good.

**Address Rockbridge Lime & Stone Co.,
Lexington, Va.**

"The Universal Verdict" is the title of a very neat catalogue from the Sydnor Pump and Well Co., of Richmond, Va., giving splendid testimonials and information in regard to all kinds of pumps. Look up their advertisement.

Heatwole's New Price List of 40 breeds of pure-bred fowls is issued by our old-time advertiser, J. E. Heatwole, Harrisonburg, Va. Poultrymen should send for this circular.

Purina Mills, St. Louis, Mo. This illustrated circular gives interesting analysis and testimonials in regard to Protina dairy feed, chick feed and other stock food. The Richmond agents of this concern, W. F. Richards, Jr. & Co., have a couple of advertisements in this number. Look them up.

One of the most beautiful catalogues we have seen this season is that of the Bateman Mfg. Co., Grenloch, N. J., makers of the celebrated Iron Gate farm and garden implements. This catalogue is handsomely gotten up, its cover being embossed in gold. Its contents should interest every farmer, and all are invited to send for it; same will be mailed free of charge. This firm has advertised with us a number of years. They have an attractive announcement elsewhere in this issue.

The Ames Plow Co., of Boston and New York, sent us a very neat and attractive catalogue of the Matthew's New Universal Seeding and Cultivating Implements. All truckers and gardeners should send for this catalogue, either to the above address, or of their Southern Agents, Griffith & Turner Co., Baltimore Md.

Diggs & Beadles, Inc., Richmond, Va., reliable sales fertilizers and implements. This is a very pretty catalogue, and will be mailed free to all who will send for it. This firm has been advertising with us ever since it started in business and we invite attention to their announcement in this issue.

The 26th annual catalogue of John W. Hall, Marion Station Md. Mr.

TWO GREAT AND VALUABLE DISCOVERIES.

KIL-@-SCALE THE WONDERFUL DESTROYER OF THE DREADED SAN JOSE SCALE.

Has saved hundreds of orchards by killing the dreaded scale. Write at once for special circular. Used and endorsed by State Experiment Stations. Easy to apply, economical and wonderfully effective. Dilutes one gallon to twenty gallons of water. Per gallon, \$1.50; five and ten gallon cans, \$1.25 per gallon; half barrels, \$1.00 per gallon. Write for circular K.

Nitrogen Culture

The Nitrogen Fixing Bacteria for inoculating Clovers, Peas, Beans. Put up in simple form so that anyone can use it with splendid results. Promotes growth, improves land for next crop. Send for special circular. Garden package, 25c; acre, \$1.50; five acres \$5.00, postpaid.

GRIFFITH & TURNER COMPANY.

205 - 215 N. PACA STREET, BALTIMORE, MD.

FREE-OUR 160 PAGE GENERAL CATALOGUE OF SEEDS, MACHINERY, GARDEN & POULTRY SUPPLIES.

PIONEER GUARANTEED NURSERY STOCK AT WHOLESALE PRICES.

All stock guaranteed disease free and true to name.

Hart Pioneer Stock is pure bred and produces heavy crops.

Value received for every dollar sent us. No Agent's Commission.

WRITE FOR COMPLETE PRICE LIST. WE WILL SAVE YOU MONEY.

HART PIONEER NURSERIES, Established 1865. **Fort Scott, Kan.**

APPLE TREES.

We offer for spring planting 2 year, 5 to 7 ft., Johnson's Fine Winter, Ben Davis, Wine Sap, Mammoth Black Twig, Stayman's Wine Sap, Albemarle Pippin, and other sorts. Correspondence solicited. J. B. WATKINS & BRO., Midlothian, Va.

VIRGINIA FARMS

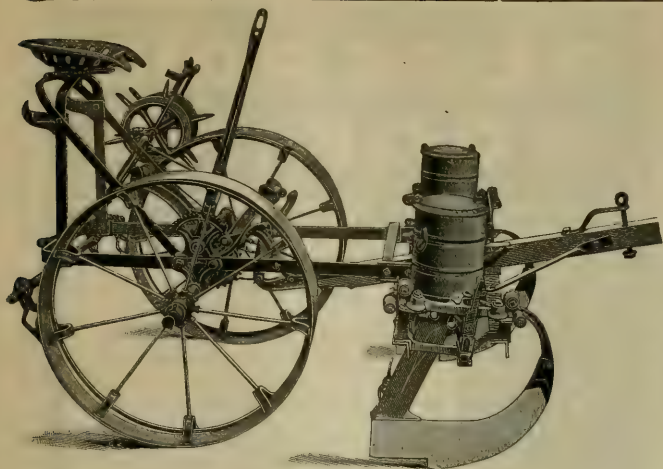
ALL SIZES AND LOW PRICES.

\$5 to \$25 per Acre.

IMPROVED AND UNIMPROVED.

Mild Climate; Elegant Water; Send for Free Catalogue.

J. R. HOCKADAY & CO., RICHMOND, VA.



For pulverizing and preparing land THE DISK HARROW

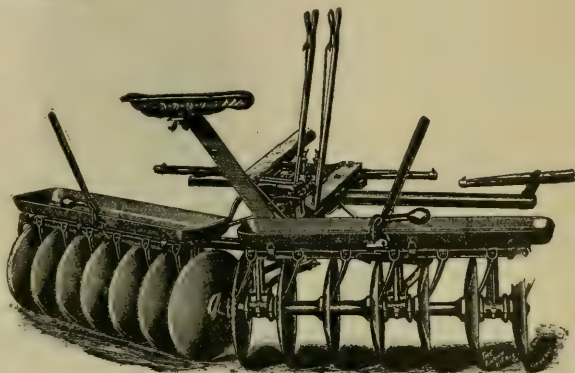
is the most thorough implement that can be used. Our Imperial with Patent Self Oiling Boxes that exclude all dirt, Ball-Bearings, and Strong All Steel Frame is without an equal. All sizes in stock at low prices.



The Disk Cultivator is highly recommended for cultivating all crop in rows. It is also very useful for listing the ground for seeding. The wheels are adjustable to various widths and the disks can be set to throw either to or from the crop. The foot levers

change the direction of the gangs at will.

Tiger walking or riding Cultivators with shovels or spring teeth.

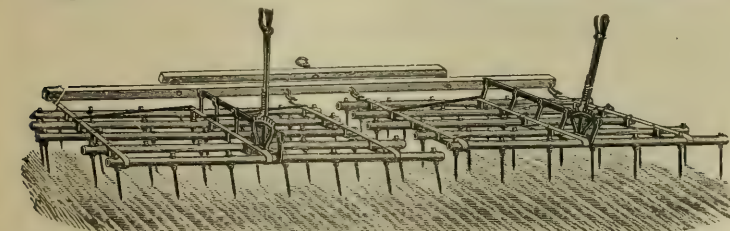


The Adjustable Steel Frame Lever Harrow is a most

excellent implement for smoothing the ground and so pulverizing it. The Levers set the teeth at any angle and are useful for cleaning it of trash.

Walking Spring Tooth Weeder. has 30 spring teeth and cuts 7½ feet. All steel except shafts. Will be found very valuable for covering clover or any grass seed and also for working corn and vegetables when small.

V. CRIMP STEEL ROOFING, Shellap Asphalt Roofing, American Field Fencing.



ing for turning all kinds of stock. The most economical fence for the farm. Poultry nettings, heavy and light lawn fenceings.

**BIRDSSELL STEEL SKEIN FARM WAGONS, MITCHELL FARM WAGONS. BUGGIES, CARRIAGES
HARNESS, ROBES, CORN SHELLERS, WOOD
SAWS, MOWERS, BINDERS, HAY RAKES, CANE MILLS AND EVAPORATORS.**

All kinds of Agricultural Implements and Machines.

Catalogue mailed free

THE IMPLEMENT CO., 1302 and 1304 EAST MAIN STREET,
RICHMOND, VA.

Hall is an appreciative reader and advertiser in the Southern Planter of several years standing. He requests us to invite all who are interested in second crop seed potatoes and strawberry plants to send for this catalogue.

Arthur Cowee, Berlin, N. Y. 1906 catalogue of Groff's New Hybrid Gladioli.

J. B. Watkins & Bro., Elmwood Nursery, Midlothian, Va. New descriptive catalogue of fruit and ornamental trees, fine plants, etc. This firm is an old advertiser in our columns and has a good lot of stock which they always sell at reasonable prices. Note their advertisements in this issue and send for their catalogue.

Seed Annual. D. M. Ferry & Co., Detroit, Mich. This is a very beautiful 100-page catalogue, giving full description of all kinds of seed plants, bulbs, etc., and will be mailed free to all applicants. This firm needs no introduction to our readers.

Griffith & Turner Co., Baltimore, Md. Catalogue of farm and garden supplies. This is a splendid catalogue of 160 pages and contains a volume of information on just about everything needed on the farm. Look up their advertisement and send for the catalogue.

L. L. May & Co., St. Paul, Minn. Catalogue of Northern-grown seed plants, bulbs, etc. This firm is well known to a number of our readers, as they have been advertising with us a number of years. This catalogue is a very beautiful one and full of interesting information. It will be sent free to all applicants.

E. W. JONES NURSERY CO.

This firm was started in 1900 by Mr. E. W. Jones on a comparatively small scale. It has gradually branched out until its stock is now being sold throughout this and adjoining States. Look up their advertisement.

CALED ON THE COOK.

A woman envied her neighbor the possession of a cook, a veritable treasure, and actually went so far as personally to call upon the coveted cook and offer her a higher wage than she was receiving. This came to the ears of the mistress.

When next the two women met, at a dinner given by a mutual friend, it was observed that the fortunate possessor of the incomparable cook did not greet the other. Said one, "Are you not acquainted with Mrs. Blank?"

The other replied, in a frigid tone, "No; but she sometimes calls on my cook."—Sunday Magazine.

Halifax County, Va., Dec. 20, 1905. I would not miss the Southern Planter if it cost \$2.00.

JNO. CRAMER.

RUBEROID ROOFING



STANDARD FOR 14 YEARS.

The oldest prepared roofing on the market, and the first Ruberoid Roofs laid, many years ago, are still giving satisfactory service under the severest climatic and atmospheric conditions,

Contains no tar or paper; will not melt, or tear. Acid fumes will not injure it.

Outlasts metal or shingles. Any handy man can apply it.

There is only one Ruberoid Roofing, and we sell it. You can verify its genuineness by the name on the label and on the under side of every length of Ruberoid Roofing. Send for samples and booklet.

Large stock of Corrugated and V. Crimp Roofing always on hand.

Southern Railway Supply Co.,

1323 East Main Street,
RICHMOND, VA.

Richmond, Fredericksburg & Potomac R. R.

Washington Southern Railway

The Double-Track
Link

Connecting the

Atlantic Coast Line Railroad
Baltimore & Ohio Railroad
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Pennsylvania Railroad
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Between All Points
via Richmond,
Virginia, and
Washington, D. C.



The Gateway

between the
North and the South

Fast Mail
Passenger
Express and
Freight Route

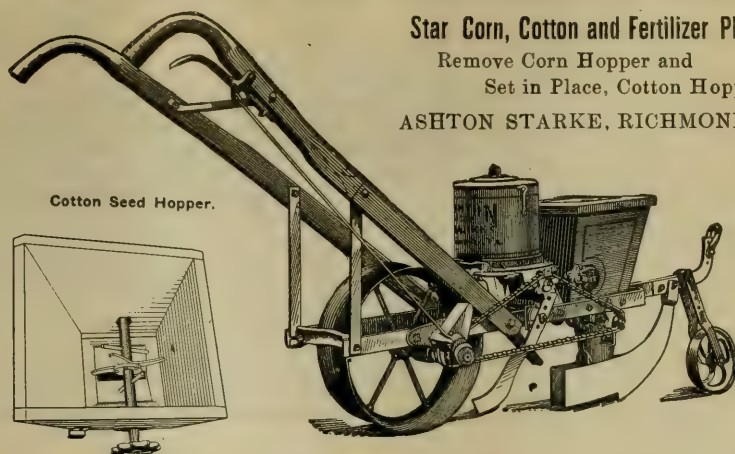
W. P. Taylor, Traffic Manager

The Greatest Corn Planter on Earth.

Star Corn, Cotton and Fertilizer Planter.

Remove Corn Hopper and
Set in Place, Cotton Hopper.

ASHTON STARKE, RICHMOND, VA.



Cotton Seed Hopper.

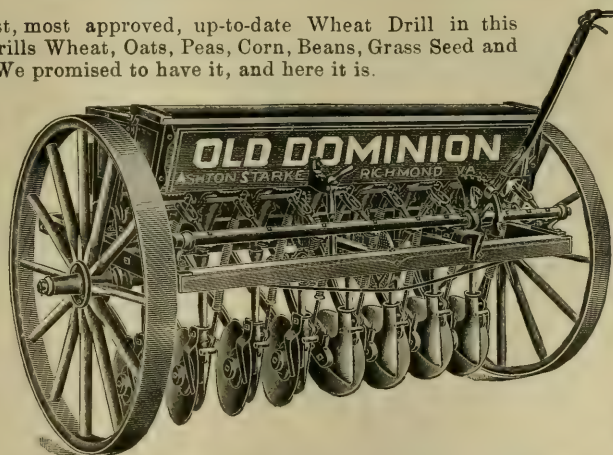
Drops any number of grains any distance apart. Will drill corn, peas etc. Puts out the fertilizer in any quantity desired and puts it out evenly. Covers the grain just right so that the crows will not pick it up and so the corn will germinate nicely.

Plants cotton as well as any planter made.

"OLD DOMINION" WHEAT DRILL

The very latest, most approved, up-to-date Wheat Drill in this Country. Drills Wheat, Oats, Peas, Corn, Beans, Grass Seed and Fertilizer. We promised to have it, and here it is.

8 Disc Drill
With
Grass Seeder
And
Fertilizer
Attachment
\$57.50
One Price to
Everybody.



Complete Drill
with
Fertilizer
and
Grass Seed
Attachments
\$57.50
One Price to
Everybody

We Know What a
Drill Ought to be.

We have handled the leading
drill in Virginia for 15 years,

We Offer the Very Best Drill Made To-day.

ASHTON STARKE, - Richmond, Va.

Either cut this advertisement out and save it. It may not appear again.

CEMENT POSTS AND BUILDING BLOCKS.

Cement fence posts and cement building blocks are fast coming into general use. It is inevitable that they shall supplant wood almost entirely within a few years. Aside from the cement, the material is ready at hand all over the country you find now hand all over the country you find now and wire fences supported by cement posts. Both are proving satisfactory in every particular. In a short time they will be the rule instead of the exception. The Hercules Mfg. Co., Centerville, Iowa, manufactures machines which enables every farmer to make his own. Both are easily made and this greatly lessens the first cost and saves shipping expenses. Read the small advertisement elsewhere and write for particulars.

PULL SOME STUMPS THIS SPRING.

With the approach of spring, a good many farmers will get ready to clear up some of their stump fields. In this connection it is well to remember the excellent stump pulling machinery made by the Hercules Mfg Co., Centerville, Iowa. Their stump machines go every where. They are simple and of wonderful power. In many places a man with a Hercules outfit can make a good thing by stumping for neighbors on contract. If you have any stumpy land to clear, or want to do some job work, you cannot do better than get into correspondence with the Hercules people. See their small ad. elsewhere and write for their little book on stump pulling and stump pullers.

CURED SPAVIN OF TWO YEARS' STANDING.

Moorings, Va., Nov. 20, 1905.
Dr. B. J. Kendall Co. Gentlemen:—I have used your preparations and have been well pleased with them. I had a horse with bone spavin of two years' standing. I used one bottle of your Spavin Cure and he has not been lame in three years. Hoping you may succeed, I am,
Yours truly,
S. O. TYNES.

PAT AND THE ELEVATOR.

"Says I, 'Is Mistor Smith in, sir?' Says the man with the sojer car, 'Well, yes; step in.' So I steps into the closet, and all of a suddint he pulls at a rope. And it's the truth I'm tellin' ye—the wall of the buildin' begin runnin' down into the cellar.

"'Och, murther,' says I, 'what'll be come of Bridget an' the childer which was lift below there?"

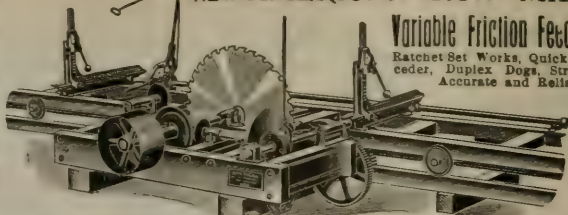
"Says the sojer-car man: 'Be asy, sir; they'll be all right when ye come down.'" "Come down, is it?" says I. "And it's no closet at all, but a haythensish balloon that yez have got me in?"

"And wid that the wall stopped stock still, and he opened the door. And there I was wid the roof just over my head. And that's what saved me from goin' up to the heavens intirely."

THE NEW AMERICAN SAW MILL

Variable Friction Feed

Ratchet Set Works, Quick Re-ceder, Duplex Dogs, Strong Accurate and Reliable.



Best Material and Workmanship. LIGHT RUNNING. Requires Little Power, Simple, Easy to Handle, Won't Get Out of Order.

With 4 H. P. Steam or Gasoline Engine Guaranteed to Cut 2,000 Ft. Per Day \$150 Buys it on cars at factory, Freight's Very Low.

Seven Other Sizes Made. Also Edgers, Trimmers, Spiggle Machines, Lath Mills, Rip and Cut-Off Saws, Drag Saws, Cord Wood Saws and Feed Mills. Catalogue Sent Free.

On January 31, 1905, W. H. Greenwood, of Bennington Vt., said: "I am using your No. 3 Saw Mill with a 15 H. P. Engine and average 2,000 feet per day. I am very much pleased with your machinery."

AMERICAN SAW MILL MACHINERY CO., 137 Hope St., Hackettstown N. J. N. Y., Office.
636 Engineering Bld'g. Agents in Richmond, Norfolk, Lynchburg and Wytheville, Va.
THE WATT FLOW CO., General Agents, Richmond, Virginia.

CHARTERED 1870.

Merchants National Bank, OF RICHMOND, VIRGINIA.

Capital, - - - - - \$200,000.00.
Surplus and Undivided Profits, - - - \$720,000.

Depository of the United States, State of Virginia, City of Richmond.

Being the largest depository for banks between Baltimore and New Orleans, we offer superior facilities for direct and quick collections. Accounts solicited.

JOHN P. BRANCH, Pres. JOHN K. BRANCH, Vice-Pres. JOHN F. GLENN, Cashier.
Assistant Cashiers: J. R. PERDUE, THOS. B. MCADAMS, GEO. H. KREEKE.

Three Per Cent. Interest Allowed in Savings Department.

ORGANIZED 1832.

ASSETS, \$1,056,360.54

Virginia Fire and Marine Insurance Company of Richmond, Va., Insures Against Fire and Lightning.

All descriptions of property in country and town, private or public, insured at fair rates, on Accommodating terms.
AGENCIES IN EVERY TOWN AND COUNTRY.

W. H. PALMER, President. E. B. ADDISON, Vice-Pres't. W. H. McCarthy, Secretary.

STARK FRUIT BOOK

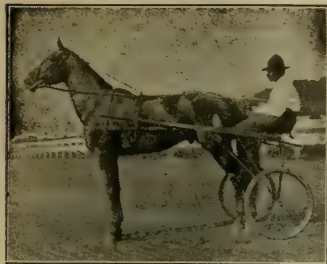
44 pages 9 x 12 inches; 22 pages showing in natural colors
216 varieties of Fruit, with concise description and season of ripening of each; 64 half-tone views of Nurseries, Orchards, Packing Houses, etc.
Send 50 cts. for book (post-paid) and Rebate Ticket permitting return of book by mail within 60 days and we refund the 50¢. Or, mail us within 1 year, Rebate Ticket with \$12 order for nursery stock and we will credit \$1.00 in part payment on your order and you keep the book free. WE PAY THE FREIGHT.
We Pay Cash weekly and want more home and traveling salesmen. OUTFIT FREE.—Stark Bro's, LOUISIANA, Mo., Atlantic, Iowa, Fayetteville, Ark.

When corresponding with our advertisers always mention the
SOUTHERN PLANTER.

WEALTH, 59579.

RECORD, 2:10.

Second in race in 2:08 3-4.



Dark bay or brown horse, 16 hands high; weight 1,200 lbs. Sired by Gambetta Wilkes, 2:19½, the greatest living sire, having 184 in the list, of which 14 have records of 2:10 and better. 1 dam Magnolia, dam of Wealth, 2:10, by Norfolk, 3:670, sire of Miss Nelson, 2:11½, and son of the renowned Nutwood, 2:18½. 2 dam Beck Collins, dam of Choctaw, 2:30, grand dam of Wealth, 2:10, and Maggie Campbell, 2:21½, by Woodburn Hambletonian, 1637. 3 dam Rebecca, thoroughbred daughter of Blucher, son of Antonio.

This is rich breeding, and shows that WEALTH traces to rare ancestral lines, while in addition he has grand size, with beauty and elegance of form. When in training, WEALTH could show a terrific burst of speed, and to reel

off quarters in thirty seconds (a two minute gait) was easily within his capacity. A race horse on the track, he has made good in the show ring by carrying off the blue ribbon on different occasions. WEALTH sires fine foals and transmits his own desirable qualities with uniformity.

A Lexington, Ky., Feb. 9th, 1906, 356 horses were sold at Auction and averaged \$301.75, 1 Gambetta Wilkes Colts were included in Sale but averaged \$480, 13 of them averaging \$550.

Fee, \$15 season; \$20 insurance. Address,

S. F. CHAPMAN, Clifton Stock Farm. Gordonsville, Va.

Or Col. W. H. Chapman, Richmond, Va.

Plain Dealing Farm,

W. N. WILMER, Proprietor.

49 Wall Street, New York.

IRGINIA CHIEF, 27267,

Black horse, 16 hands high, weight, 1,300 pounds. Sired by Kentucky Prince, 2:670; dam Nina, by Messenger Duroc, 104.

Fee, \$10 season; \$15 insurance.

AEBINEER, 30923,

Chestnut horse, 15½ hands, weight 1,100 pounds. Sired by Virginia Chief, 27267; dam Aebina, by Alban, 5322.

Fee, \$8 season; \$12 insurance.

PLAIN DEALING, 30921,

Chestnut horse, 15½ hands, weight 1,050 pounds. Sired by Virginia Chief, 27267; dam Barbara, by Alcantara, 729.

FEES \$10 INSURANCE. Address PLAIN DEALING STOCK FARM, Scottsville, Albemarle Co., Va.,

Stallion cards, folders, posters and stock Catalogues compiled by "Broad Rock," who is also prepared to trace pedigrees and register horses, having full sets of the American Trotting Register, Stud Books, Wallace's Year Books, and other standard works, in addition to extensive private memoranda.

Address

W. J. CARTER,

P. O. Box 929, Richmond, Va.

Or 1102 Hull St., Manchester, Va.

Representing "The Times-Dispatch" and "Southern Planter," Richmond, Va.; "Kentucky Stock Farm," and "The Thoroughbred Record," Lexington, Ky.; "Sports of the Times," New York, and the "Breeder and Sportsman," San Francisco, Cal.

LORD CHANCELLOR, 36614

trial 2:27½, trotting.

Black horse, foaled 1899, 15½ hands, weight 1,100 lbs. sired by Dare Devil, 2:30 (son of Mambrino King, 1:29, and Mercedes, by Chimes, 5343; by Electioneer, 126).

1 dam Princess May R., by Prince Regent, 2:16½ (son of Mambrino King and Estabilla, by Alcantara, 2:25, by George Wilkes, 2:12); 2 dam Mary Weston (dam of 3 producers) by Mohican, 619.

Note.—Lord Chancellor is a horse of commanding form and handsome proportions. His sire, Dare Devil, one of the finest horses in America, is owned by Thomas W. Lawrence, the famous Boston financier, who paid \$50,000 for him, for use in Dreamworld Farm stud. Lord Chancellor is bred to Mambrino King, founder of a family noted for wonderful beauty, matchless style and superb race horse quality.

For terms of service and keep of mares, address: W. J. CARTER, 1102 Hull Street, Manchester, Va.; or P. O. BOX 929, Richmond, Va.

JUDGE COX, 22236,

Brown Horse, by Phalanx, 8754, dam Kate Mes. (1st. Sire of Coxe, 2:13

etc.

For terms, address,

E. T. COX, McKenney, Va.

"IN THE STUD."

The Mammoth Jack

King Jumbo,

A good individual and promising sire,

Fee \$4 leap; \$8 season; \$12 insurance.

O. N. NUCKOLS, owner, Rio Vista, Va.
R. F. D., No. 1.

Sidney Prince, 32932,

Record 2:21½.

by Sidney, 4770, dam Crown Point Maid, by Crown Point, Sire of 8 in list.
Fee \$35 season.

ROD OLIVER

by Electric, dam Lady May, by Port Leonard.
Fee \$25 insurance.

MOKO Jr.

by Moko. Fee \$25. Insurance.

RED DILLON

by Baron Dillon, 212. Fee \$20 Insurance.

Address,

FLOYD BROS. Bridgetown, Va.

DUNRAVEN FARM HACKNEY STALLION,

PATRICK HENRY

Chestnut horse, foaled 1902, 15½ hands, weight 1150 pounds. Sired by Squire Rickel, dam Margery, by Roseberry. Address: ANDREW POLLARD, E. F. D. 5, Richmond, Va.

PLANETEER, 2nd.

See Amer. Trotting Register, Vol. 17.
Bay horse, 15½, weight 1,100 lbs., by Electioneer, 126, sire of Arion, 2:07½; Sunol, 2:08½; Palo Alto, 2:08½, etc.; dam Planotia, granddam of Peko, 3:11; Pedlar, 3:18½, etc., by Planet, thoroughbred son of Revenue. Planeteer has good conformation along with fine trotting action and even temper, which he transmits with uniformity. For terms of service and keep of mares address: H. B. GRAVES, Rhodes, Va.; or W. B. GRAVES, Lynchburg, Va.

HE "RASSES" WELL.

There is a funny story going the rounds of the papers, and it is vouched for as true. It reminds me of a good yarn told on a boy some years ago. He was a German and an employee of a down-town printing office. One Saturday he had blundered in some of his work and the foreman became very angry with him. At 6 o'clock he was called to the foreman's desk and told that his services were no longer needed.

On the following Monday morning he showed up as usual with his noon-day lunch under his arm. The foreman espied the boy as the latter was taking off his coat. "Say, Joe," he yelled out, "didn't I discharge you on Saturday night?"

"Yes."

"Then what are you here for?"

"My mutter says I couldn't sthay discharged, undt seent me here."

It is needless to say that he stayed on and finally became proficient in his trade. But here is the new story:

A firm in Chicago advertised for a boy. The application of the one who secured the position is given below:

"Mister, I want the job, mi folks aint rich, and I got to rassle. It does bete all how hard times is, im fourteen; I can do chores and look well in store clothes. I want a good job in your offs. Let me in!"

He got the job, and his employers say he can "rassle" well.



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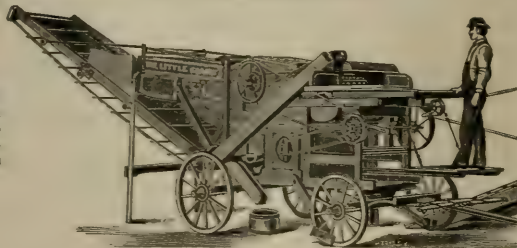
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THE FIRST CORN ARTICLE.

The first settlement of Englishmen in North America was made on the coast of what is now the State of Virginia, in 1585, thus preceding the Pilgrim fathers by thirty-five years. Among those pioneer colonists was one Thomas Hariot, who wrote a detailed account of the natural resources and soil products of that locality. His account was published in book form in London in 1588, and two years later an edition was published in Frankfurt, illustrated by De Bry, an eminent wood engraver of his time. From a copy of this last edition the following is taken. It should be found interesting as the first article ever written on Indian corn in North America, and also a specimen of English "as she was writ" over three centuries ago:

"Pagatour, a kinde of graine so called by the inhabitants; the same in the West Indies is called Mayse. Englishmen call it Guiney wheate or Turkie wheate, according to the names of the countreys from whence the like hath bene brought. The graine is about the bignesse of our ordinary English peaze, and not much different in forme and shape, but of divers colors: some white, some red, some yellow, and some blew. All of them yeelde a very white sweete floure; being used according to his kind it maketh a very goodde bread. We made of the same in the country some

mault, whereof was brued as goodde ale as was to be desired. So likewise by the helpe of hops thereof may be made as goodde Beere.

"It is a graine of marvellous greate increase; of a thousand, fifteene hundred and some two thousande folde. There are three sortes, of which two are ripe in eleun or twelue weeks at the most; sometimes in ten after they are set, and are then in height of stalke about six or seven foote. The other sorte is ripe in fourteene, and is about ten foote high; of the stalkes some beare foure heads, some three, some one and two; every head containing five, sixe or seven hundred graines within a fewe more or less. Of these graines besides bread the inhabitants make victuall eyther by parching them or seething them whole vntill they be broken, or boiling the floure with water into a pape."

The planting of corn:

"Then their setting or sowing is after this manner. First for their corne, beginning in one corner of the plot, with a pecker they make a hole, wherein they put four grains with what care they touch not one another (about an inch asunder), and cover them with the moulde again, and so throughout the whole plot, making such care they touch not one another manner; but with this regard that they bee made in rankes, every ranke, differing from other half a fadome or

a yarde, and the holes also in every ranke as much. By this means there is a yarde spare ground between every hole; where according to discretion here and there, they set as many Beanes and Peaze, in diuers places also."

The disposition to boom a new country was evidently as strong then as now, as the following testifies:

"The ground being thus set according to the rate by us experimented, an English Acre containing fourtie pearches in length and foure in breadth, doth there yeld in crotpe of corn, beanes and peaze at the least two hundred London bushelles. When as in England fourtie bushelles of our wheate yeelded out of such an acre is thought to be much."—Mass. Plowman.

A Brooklyn Sunday school teacher once had occasion to catchise a new pupil whose ignorance of his Testament would have been amusing had it not been so appalling. One Sunday she asked the little fellow how many commandments there were.

To her surprise, the lad answered, glibly enough, "Ten, ma'am."

"And now, Sammy," pleasantly asked the teacher "what would the result be if you should break one of them?"

"Then there'd be nine!" triumphantly answered the youngster.—Woman's Home Companion for August.

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Gran. Sugar, lb.04 3/4	Molasses Feed, per cwt.	1.10	Five yr., old Keystone		
Arbuckle's Coffee, lb.15 1/4	Cotton Seed Hulls, ton	11.50	Whiskey	2.50	" "
Pure Lard, lb.10	Cotton Seed Meal, ton	31.00	Three yr., old Excelsior		
Good Lard, lb.08	Corn, Oat & Wheat sacks,05	Whiskey	2.00	" "
Best Salt Pork, lb.11	Jugs, free.		Linseed Meal, ton	36.00	
Good Salt Pork, lb.07	Peach Brandy.	2.50	Two yr., old Old Capitol		
Cut Herring, doz.10	Fine Catawba Wine.	\$.50	Whiskey	1.50	" "
Best Cheese16	Fine Blackberry Wine.60	Five yr., old Virginia		
Large Can Tomatoes,08	California Port Win.	2.00	Mountain Whiskey ...	3.00	" "
100 lb. Sack Salt,50	Good Port Wine.60	Five yr., old North Caro-		
Rock Salt, lb.01	California Sherry Wine. 1.00	" "	lina Corn Whiskey. ...	2.50	" "
Corn, per bu.58	Imported Sherry Wine.	3.00	Three yr., old North		
Oats,43	Imported Port Wine.	3.00	Carolina Corn Whis-		
Chicken Wheat,90			key	2.00	" "

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Agriculture is the nursing mother of the Arts.--XENOPHON.
Tillage and pasturage are the two breasts of the State.--SULLY.

67th Year.

Richmond, Va., April, 1906.

No. 4

Farm Management.

WORK FOR THE MONTH.

Whilst we have had very severe weather since writing our article on "Work for the Month," for the March issue, yet we have had weather much more nearly normal than was the case during the winter months. Cold rains and searching winds from the north, northeast and northwest have been almost continuous during March to this writing (20th March), with the result that land is still wet and cold, and little opportunity has been given for seeding oats or grass, or for preparing land for the summer crops. This condition of the weather has prevailed not only over this State, but largely over all the coast States to the Gulf of Mexico, whilst throughout the North and West winter weather has prevailed with heavy snow and hard frost. Wheat and oats seeded in the fall have wintered well generally throughout the South, and look promising. What the condition in the North and West will be when the snow clears off remains to be seen. In some sections of the Northwest we notice reports of considerable damage from winter killing by the alternate freezing and thawing of the land before it was covered with snow. What will be the total result of this will not be known until next month. If it were not that there were other factors controlling the price of wheat in the market its present low price would seem to indicate that it was the opinion that little damage to the crop seeded had been done, but this factor has at this time little bearing on the subject, as the controlling influence is the fact that Argentina and Russia have both been able to ship large supplies

of wheat to the European market, and that keeps the supply well in advance of the demand, and causes little inquiry to be made for the surplus except at a low figure. The Argentine crop was an abnormally large one, and as Argentina has only a small population to supply, the amount available for export was large. This South American State seems now likely to have in the future a great influence on the price which wheat will command in the market until the time comes when our own home market is large enough to take all our home product. The Argentine farmer having practically no home market, is compelled to export, and as he can produce wheat on the fertile lands of the State at a low cost, he can afford to sell at a low price in the European market, and whatever price he there makes, will control the price of our crops so long as we have a surplus to dispose of. It is idle to suppose that the farmers here can fix the price unless they can unite to curtail production so as to bring it within the limit of our own consumption, and this they certainly cannot do, as on the low-priced and fertile lands of the West and Northwest wheat will continue to be produced largely even though the price were to go much lower than it has ever done. Russia, which on account of political and war troubles, was not expected to export largely this year, has supplied a large quantity to the trade, probably largely because of the fact that the country needed the money so badly that even at the expense of suffering to her own people, she must part with the wheat. What the immediate future of the wheat market will be is likely to be largely determined by

the condition of the fall seeded crop when winter is over, as both Argentina and Russia have now probably shipped the heaviest part of their surplus crops. Probably the effect of the existing low prices will be somewhat to curtail the spring seeding in the Northwest, and especially so in view of the fact that the Canadian Northwest is now becoming such a large producer of wheat. There land is cheaper than in this country, and it is marvelously productive of wheat, making from 25 to 40 bushels to the acre, with little preparation and no fertilizer. Tens of thousands of farmers from the West have moved into Canada within the last two or three years, and they are still going, and this added to large emigration from Europe, is going to result in the production of immense crops of wheat in Canada in a few years. In fact, that country seems likely to become the wheat granary of the world.

The delay which the weather has interposed in the seeding of spring oats has largely reduced the area usually seeded to that crop at this time. It is now getting late to put in oats with any certainty of a profitable crop except in the mountain sections of the Southern States. We would urge farmers not to waste time in preparing and seeding the crop, but to reserve the land intended for oats for the numerous summer forage crops, which we can so successfully produce even when seeded as late as July. As oats are mainly grown in the South for a forage crop, they can well be substituted with these forage crops.

The main work to which the attention of farmers should now be directed is that of preparing the land for the planting of the corn, cotton and tobacco crops. This work should have continuous attention until the crop is planted, whenever the land is in proper condition for working. Do not, however, be tempted to plow land when wet. Even though the planting be delayed a little beyond the best time, in waiting for land to dry, it is better to suffer this delay rather than incur the loss which is bound to follow the planting of crops on land plowed when wet. Land plowed wet can never be got into fine planting order, however much it may be worked and cultivated, and it will show the effect in the crop for more than one year. If a handful of the soil when turned over be squeezed into a ball in the hand and then be dropped on the ground from a height of two or three feet, and it does not fall into small pieces, the land is too wet to plow. When once the ground is in order, keep the teams at work turning it over. Don't

plow more than an inch or two deeper than the land has been plowed before at this season of the year. The time for deep plowing is the fall and winter when the action of the sun and air can ameliorate and aerate the soil and render the plant food in it available for the sustenance and growth of the crops. This is a process which takes time, and at this season of the year there is not time to spare. If the subsoil be a hard pan, or be close and impermeable, use a subsoil plow or a single-tooth cultivator in the bottom of each furrow, and break, but don't bring the subsoil to the surface. Especially is it desirable thus to break the subsoil for the corn crop which, if the opportunity is given it, is a deep-rooting as well as a wide-spreading rooting crop. Unless corn can get its roots down into the subsoil it is bound to suffer in a dry summer, but if it can get deep root-hold even a drouth of considerable length will not hurt it. This breaking of the subsoil is also of great importance in enabling the land to absorb and hold the moisture which is absolutely essential to the well-doing of the crop. If the season should turn out a wet one, a subsoiled crop will not suffer from drowning, as the open subsoil will carry off the surplus water at the same time that it holds sufficient of that water to meet the needs of the crop. The great essential factor in preparing land for the production of a good crop of corn is deep and perfect preparation of the land before the seed is planted. It matters not how well the crop may be cultivated afterwards, if this essential is not met, the crop can never be the success it might have been. We have the records of all the great crops which have been grown in this and the adjoining States, and in every case the prime factor in securing the result has been deep and perfect cultivation of the soil before the crop was planted. Better spend a week or ten days in making perfect preparation of a piece of land than try to plant twice the area in imperfectly prepared land. The average yield of the corn crop in the South is a miserable one—in this State, about 22 bushels to the acre—compared with what it might be if the land was properly prepared before the crop was planted. Whilst it is true that we make as good average yields on the acreage planted as many, or, indeed, most of the other corn States, yet this is no reason why we should not do much better. If one man, or for that matter, a dozen men (and we could readily name

more than a dozen) makes an average of 50 bushels to the acre, and many of them have made nearly or quite twice this average per acre on land of not more than average fertility, then thousands could do so if they would only try, and this without the use of another pound of fertilizer in excess of that already used. Indeed, we doubt much whether it would pay to use even that small amount already used. Writing on this point of using fertilizer for the production of crops as practiced in the South, Professor Soule says and says truly: "The blind faith in fertilizer and the immense amount used has led many people to suppose that it is impossible to farm successfully without using large quantities of commercial plant foods. This is not true, for while some fertilizer can be used to advantage there are many crops which could be grown as successfully as at the present time, and larger yields be obtained if only better systems of cultivation and rotation were adopted, and more live-stock kept on the farms." Discussing the best methods for increasing the yield of corn in Virginia and the South generally, Professor Soule lays emphasis on the importance of better soil cultivation and the breaking of the subsoil, and adds: "By bringing land into a rotation of crops, so as to put corn on a good clover sod, the yield will be increased several bushels per acre. Then, if enough phosphoric acid and potash are added to supply the needed constituents for the development of the stalk and grain a further increase may be counted on. "A good many enquiries," he says, "have come to our attention quite recently in which the statement is made that the corn made a good growth of stalk, but failed to ear well. This might be due to several reasons, but the chances are that the soil is deficient in phosphoric acid and potash, and an application of 2-8-2 goods is little better than a waste of money when it is desired to supply the land liberally with phosphoric acid and acid potash. The farmer should buy these elements directly from the manufacturer, and mix them for himself, then make liberal applications, say at least 200 to 400 pounds of high grade acid phosphate, and 50 to 100 pounds of muriate of potash per acre. The land will be often benefited by an application of lime. From 50 to 75 bushels should be used once in from three to five years, but not oftener. Apply the lime in the caustic form before seeding, cover lightly

with the harrow, then allow the land to stand two or three weeks before planting, to avoid danger of injury to the seed. * * * The importance of studying all these questions is brought out nicely by certain experiments made by the writer with Hickory King and Coker's Prolific corn. The same fertilizers in the same amounts were used on these two varieties. The increase over no fertilizer with Hickory King varied from 2 to 7 1-4 bushels per acre. Under the same conditions the increase with Coker's Prolific varied from 2 to 22 bushels. The best results from both these corns were from applications of lime at the rate of 25 bushels per acre, farm-yard manure at the rate of 8 tons per acre, and acid phosphate and muriate of potash at the rate of 150 and 50 pounds, respectively, with from 75 to 100 pounds of nitrate of soda, used as a top dressing after the corn was well up. This experiment brings out a very important point, and one which is often not clearly understood, namely, that some varieties of corn respond well to fertilizer, while others do not. Therefore, the variety selected, as well as the fertilizer, must be studied with great care, for it is quite possible to use one fertilizer without result on a given variety, and another with great success. It is also clearly shown that some varieties will respond to the use of fertilizers much better than others."

Upon this question of the use of commercial fertilizers on corn, we are constantly asked advice. We have uniformly given the reply that a careful consideration of the various experiments made in this and other States points conclusively to the fact that in the great majority of cases there is no commercial fertilizer which can be used profitably on the corn crop. It may, and often will, materially increase the yield, but when the cost of the fertilizer and the increased value of the product are compared the result is almost invariably seen to be profitless. The only fertilizer which can be used with a certainty of profit on the corn crop is farm-yard manure, and there is no place or crop grown on the farm to which farm-yard manure can be so profitably applied as to the corn crop. The great root system of the crop enables it to utilize even the coarsest barn-yard manure, and to make profitable use of it, and the use of the manure sets up and stimulates bacterial growth in the soil which is even

more valuable than the actual plant food in the manure. The next best fertilizer to use is a clover or grass sod, and this clearly indicates the place in a rotation of crops, which the corn crop should occupy. Select a grass or clover sod and apply the barnyard manure on this sod, and there plant the corn after finely and deeply preparing the land, and then with shallow frequent cultivation a crop will be made whether the season be a wet or a dry one, and it will be made with profit if care is also taken in the selection of the seed of the variety planted and the variety be one adopted to the locality. In an article in this issue, Professor Soule shortly summarizes the results reached in the tests of different varieties made at the Blacksburg Experiment Station last year, and to this article we refer our readers for advice on this subject. It should be borne in mind when considering this article that the Blacksburg station is on the mountains of Southwest Virginia, at a high elevation, and, therefore, not perhaps the typical location for corn experiments in securing the greatest yields from many varieties. On lands situate at a lower elevation and on the river low grounds many of the varieties which, at Blacksburg, made 50 bushels per acre, or less, make regularly an average of from 50 to 75 bushels to the acre, and have frequently made from 100 to 150 bushels to the acre. This is especially true of Coker's Prolific, which, on James River low grounds, has made 180 bushels to the acre. We strongly advise attention to the point of selecting varieties to be planted from those which have become thoroughly acclimated to a section and are in hopes after what we said on this subject of selection last year that many farmers will have saved seed from varieties adapted to their locality, and from crops which had all the barren stalks carefully detasseled before pollenizing. These barren stalks are one of the greatest factors in reducing the yields of corn crops all over the country. If they could be eliminated from crops, and they can be almost entirely got rid of by persistence, then bushels would be added to the yield of every crop.

Another factor greatly influencing the yield of corn produced is the missing hills in the field. These can be almost entirely obviated by carefully testing the germinating power of the seed-corn before planting. Unless from 90 to 95 grains out of every hundred will sprout when tested by placing them be-

tween damp cloths in a warm place, and keeping them damp until the grains have had time to sprout, say three or four days, the selected seed corn should not be planted, but other seed be got. No man can afford to have from 200 to 400 missing hills in every acre of corn, and this he will have if he uses seed of which less than 90 per cent. will sprout, assuming the corn to be planted thirty-nine inches apart each way, or at the rate of 4,000 hills per acre.

In discussing the question of fertilizing the corn crop we notice that we omitted to mention the subject of applying fertilizer to the crop during the period of growth. The question is frequently asked us as to whether this is not a desirable method of feeding the crop. We have looked up experiments made with this method, and have also had reports from subscribers who have tried this method. On thin land with little mineral food in soil and with a hard pan or leachy subsoil under it, the practice has been found to help the crop considerably. Part of the fertilizer is applied at planting and then the remainder given at the time of cultivating the crop for the second and last time. Those who have adopted this system on such land as we have described, say that the result is to secure a better setting of ears and less stalk. Whenever corn has to be grown on such land as we have described we think this practice of intercultural fertilization may very probably be adopted with advantage; but on good, typical corn land, deeply broken and finely prepared, we do not think any advantage would be secured. A top dressing of 75 or 100 pounds of nitrate of soda per acre, applied just when the corn is commencing to grow, can very frequently be applied with great benefit, as it helps the corn to rapid root growth, and thus enables it to get in touch with the fertility in the land without a check in its growth, and the profitable corn crop is the one which grows right away from the day it is planted until the ear is matured. This fact should always be borne in mind when planting the crop. Do not plant too early, when the ground is cold, and when the young plants, after they come through the soil, are apt to receive a check by cold, frosty nights. A check in growth is easily caused in this way. It is a much harder matter to set the plant growing again. Wait until the soil is warm, and until the probability of cold, frosty nights is past. A week lost in waiting for

this time is not time wasted or money lost in the ultimate outturn of the crop.

In the cotton sections the planting of the crop should be pushed to completion as fast as the land can be got into good working order. The importance of early planting to head off the boll weevil is now fully realized. Deep breaking and fine preparation of the soil for the cotton crop is equally as important as for the corn crop and cotton planters should carefully read and apply in their practice what we have said as to the preparing of the land for corn planting. What the cotton lands of the South most need is humus in the soil, and until cotton planters learn to plant cow-peas and crimson clover on their lands as rotation crops and as winter cover for the land, they can never expect to make cotton growing as profitable as it ought to be, however much fertilizer they use. The world's demand for cotton is constantly growing, and a 12,000,000 bale crop will, in a year or two, be just as easily disposed of at a profitable price as a 5,000,000-bale crop was a few years ago. We can easily produce this increased crop in the South if cotton planters will adopt the system of growing Cow-peas in rotation with the cotton, and plow them down in the late fall, and sow crimson clover in the cotton crop in the early fall to make a winter cover for the land. If they will apply 300 or 400 pounds of acid phosphate per acre to these crops then they will need to use but little fertilizer to make the cotton crop. The maximum quantity of fertilizer that can be generally used with advantage on average cotton land when planting the crop has been concluded to be such an amount as will furnish 50 pounds of phosphoric acid, 15 pounds of potash, and 20 pounds of nitrogen to the acre. A fertilizer made up of 1,200 pounds of acid phosphate, 600 pounds of cotton-seed meal and 200 pounds of kainit, will do this, applied at the rate of 500 pounds to the acre.

Land intended to be planted in tobacco should be plowed at once. It should not now be broken much deeper than previously, as it is too late to turn new soil on to the surface. Follow the plow with the harrow at once, and thus conserve the moisture in the land until planting time. Do not be afraid to work the land as frequently as possible, always leav-

ing it with a fine mulch of soil on the surface, to keep the soil moist. Tobacco is a shallow-rooted crop, and needs to have the top six inches of soil in as finely a broken condition as possible, so that the fine rootlets can easily penetrate it and get hold of the plant food in the soil. The great requisite for successful tobacco growing is land full of humus, decayed vegetable matter. If land be not in this condition, it matters not how it be fertilized, it will never make fine tobacco profitably. The nature and quantity of fertilizer best to be applied for a successful tobacco crop is one difficult to arrive at, as the analyses of different crops of tobacco show great variation in the quantity of plant food constituents contained in the leaves and stalks. It would almost appear as though the crop had the power to assimilate the plant food in the soil in such a way as to make excesses in one element supply deficiencies in the others contrary to the rule governing the growth of all other crops. Of one thing only are we certain that potash is the controlling element in fixing the quality of the tobacco, and with this must be supplied a sufficiency of nitrogen to make large leaf growth. Major Ragland found after long continued experiments that a fertilizer made up of 160 pounds of dried blood, 120 pounds of sulphate of potash and 114 pounds of acid phosphate to the acre gave him the best and most profitable results on his land in growing dark tobacco. We last year strongly advised the use of Peruvian guano, say at the rate of 400 pounds to the acre, re-enforced with some sulphate of potash, say 15 to 20 pounds to each bag of guano as being likely to make a satisfactory fertilizer for the crop. We have heard from several parties who acted on our advice, and they uniformly report good crops of a fine type of tobacco. The plant food in Peruvian guano is in a very available form, and derived from organic matter, and seems to exactly meet the needs of this crop, except that it lacks potash sufficient to make the best quality. This is easily supplied in the form of sulphate of potash. For making light bright tobacco cotton-seed meal has been found to be a good source for supplying the nitrogen, especially if a small quantity of nitrate of soda be used with it to give the plants a start before the cotton-seed meal becomes available. Use the cotton-seed meal at the rate of 600 pounds to the acre, with 75 to 100 pounds of nitrate of soda, and

120 pounds of acid phosphate to supply the needed phosphoric acid.

Whilst it is too early to plant forage crops yet, as opportunity serves, the land should be got ready for these, and we would strongly urge that provision be made for growing cow-peas, cow-peas and sorghum, sorghum alone, Kaffir corn, soy beans and soy beans and cowpeas grown together, and millet. If some or all of these forage crops were grown on every farm, and they can all be grown successfully in the South, there would soon be less western hay sold on the markets of the country, and stock would benefit largely by the change, and dollars be saved. There should be no need for a pound of western hay to be shipped into the South. If in need of feed for stock in the early summer months before cowpeas or corn are ready, a few acres sown at once in cat-tail millet (sometimes called Pencillaria in the seed catalogues) on a piece of fairly rich, finely worked land will give a heavy yield of green feed of fairly rich nutritive value. It will usually be ready to cut in from 60 to 80 days from seeding if the weather be seasonable. Sow a bushel of seed to the acre.

Where hogs are being grazed, as they ought to be on every Southern farm, an acre or two planted now in artichokes will be found very acceptable feed for the hogs in the winter months. They will root them out for themselves whenever the land is not frozen and dry enough for them to run on it. Plant in rows three feet apart, and drop one foot apart in the rows. We know several farmers who use the artichoke stalks for feed for cattle, cutting them off just before they begin to lose their leaves, and curing them like corn fodder. The yield of the tubers is not lessened by thus using the stalks, as by the time the stalks are cut the tubers are made, and only require to mature.

EXPERIMENTS WITH VARIETIES.

Editor Southern Planter:

During the past season some twenty-six varieties of corn were grown in the Station plats. These corns were all planted about the 29th of April, and were harvested from September 4th to October 25th. There was thus a variation in the number of days in maturing of 51. Early Leaning ripened before

any of the other varieties in 128 days. This is a yellow corn, well adapted to almost any section of the State to which it has been properly acclimated, and where an early maturing corn is desirable. In the coastal plain regions where the seasons are considerably longer, it could be used to good advantage after wheat or other winter-grown cereals, and while it might not mature grain, it would certainly develop sufficiently to make an excellent quality of silage. Through selection the date of maturing for this corn can be reduced. This variety has been improved considerably in the West, and is what is known as a thoroughbred variety in that section. The grains are, if anything, a trifle short, but the rows on the cobs are straight and a large number of grains are packed on a comparatively small cob. It is an excellent corn for feeding purposes, though many being prejudiced against a yellow variety would not care to grow it.

Boone County White, from Indiana, matured in 132 days. After growth in this climate for two or three years it would probably not mature quite so early unless carefully selected. It is an excellent variety of white corn, and gave good satisfaction on our plats the past year. Virginia Golden Dent, a corn which has been improved to some extent by Mr. A. O. Lee, of Bartee, made a satisfactory record the past season, though it required 152 days to mature. This corn is hard and flinty, and has a nicely shaped grain. A good deal of work along the lines of selection, however, is needed to give this corn a permanent character, and to insure the production of ears of uniform size and shape, attributes which we all regard as very desirable and essential where increased yield is sought.

Hickory King is a good variety for thin uplands and soils of fair fertility. In our experience this variety has shown ability to gather plant food under adverse conditions. On rich soils it is not a desirable variety. It required 156 day to mature on our plats the past year. Cocke's Prolife is another good variety for Virginia conditions. As the name indicates, two or more ears are generally produced to each stalk. It required 175 days to mature, a difficulty which can be remedied, as already pointed out, by selecting corn from early maturing stalks. Cocke's Prolife does well on soils of fair fertility and on rich bottom lands. It has one drawback, however, in

that the stalks are rather slender and inclined to grow too tall so that the corn sometimes breaks down, and then an undue amount of stalk is not desirable in any variety. These difficulties will be overcome by careful selection with definite ends in view. It is to be hoped that some of our Virginia farmers will take up this question of corn breeding, for it has been clearly shown that our common native-grown corns are more satisfactory than those from the West.

Our experience this year with Virginia grown seed and that from the West indicates that the climate here has a determining effect on the shape and character of the grain. Our climate does not seem to favor the long, deep grain with the rough top so much affected in the West. This was brought out clearly by careful measurements made of the grains of pure-bred pedigreed varieties brought from the West and grown alongside of our native Virginia corns the past season. In every instance the grains of the western varieties were shorter the first year grown here than the grains of the original seed planted, and more nearly approached the shape and character of our Virginia grown kernels than those of the western prototype from which they were derived. This indicates very clearly that Virginia farmers must undertake the selection and improvement of strains of corn for themselves, and that they can not use the western grown product, except possibly for foundation stock, to advantage. The type of kernel produced on our Virginia varieties is somewhat shorter and rather rounded on top, leaving as it were a slight opening between the tops of the kernels, even on a choicely formed cob; whereas, on the western pure-bred samples the grains are almost flush on the surface. The grains are also deeper, more tapering in many instances, and thinner, and they are not so flinty and hard as the grain produced by the Virginia varieties. These points of difference are well to bear in mind for they furnish the basis on which the improvement of corn for Virginia conditions must be undertaken, and they establish more firmly than ever an opinion long held that our people must undertake plant breeding for themselves for our climatic and soil conditions are so different from those prevailing in the corn belt. Then, it is a well-known fact that corn is readily influenced by changes of environment and that in order to test the merits of a variety brought from the West it should be grown here for

at least three years in order that it may become thoroughly acclimated.

In all instances the varieties of corn were planted in checks 39.6 inches apart in each direction. This gave 4,000 hills per acre, and as two plants were left in every hill, 8,000 stalks per acre. A comparison of the different varieties brought out some very interesting and instructive facts and showed how the yield and quality of corn in the State could often be improved by selection. While only standard varieties were grown, yet it was observed that Blount's Prolific only showed 7.5 per cent of barren stalks, while Virginia Ensilage showed 43.75 per cent. A variety from Minnesota, No. 13, showed the same number of barren stalks, while Boone County White showed 16.88 per cent.; Hickory King, 16.88 per cent.; Virginia Golden Dent, 12.50 per cent.; and Early Leaming, 20 per cent. The average weight of the stalks of the several varieties varied greatly. In the case of Boone County White they showed 7 1-2 ounces; with Virginia Golden Dent, 6.66 ounces; with Hickory King, 6 ounces; with Cocke's Prolific, 6.15 ounces; with Blount's Prolific, 5.65 ounces; and with Leaming, 5 ounces. The average weight of the ears was greatest with McMackin's Gourd Seed, a Southern grown variety from Tennessee, namely, 8.70 ounces; Improved White Snow Flake was second with 8.60 ounces; Boone County White was third with 8.56 ounces. The average weight of the ears varied from a little over 5 ounces up to nearly 9 ounces, which would be an important consideration provided all the varieties had produced the same number of ears per acre, which of course, they did not do.

The height of the stalk also varied considerably. The smallest variety was Minnesota, No. 13, where the average height of the stalk was only 78 inches. This variety was shown to be so unsuited to our conditions by one season's test that it is hardly fair to consider it at this time. The stalks of Early Leaming, averaged about 96 inches in height; Virginia Golden Dent, 108 inches; Hickory King and Boone County White, 114 inches; and Cocke's Prolific, 135 inches. The largest yield of green crop, per acre, was made by Boone County White and Hickory King with 8.25 tons; Cocke's Prolific was second with 7.75 tons; Virginia Ensilage was third with 7.25 tons; and Virginia Golden Dent fourth

with 7.12 tons per acre. The yield of stover, per acre, varied from less than one ton up to 2.5 tons, Hickory King being credited with the latter figure. Virginia Golden Dent was second with 2.39 tons; Leaming third with 2.25 tons; and Virginia Ensilage fourth with 2.20 tons. Boone County White did not make as large a yield of fodder as was naturally expected from the good yield of grain obtained.

Boone County White led in the yield of grain per acre with 50.35 bushels. This yield is based on 70 pounds of ears per bushel of grain. Virginia Golden Dent was second with 47.50 bushels; Cocke's Prolife third with 43.92 bushels; Hickory King fourth with 42.85 bushels; Blount's Prolife fifth with 40.35 bushels; Johnson County White sixth with 37.85 bushels and Leaming seventh with 37.71 bushels. Virginia Ensilage only made 30 bushels of grain per acre, and did not yield as well as was expected. It is well to remember, however, that these corns have only been grown side by side for one year, and that a test of several years will be necessary to determine their relative merit; but they show wide variations at the present time and indicate that there is much to be learned about the best varieties of corn to grow on Virginia farms. This work will be pushed with vigor during the coming year, because it is evident that a difference of 51 days in maturing and 37 per cent. of barren stalks are matters of grave concern to the average corn grower of the State. Then, when it is remembered that the yields of these 26 varieties grown side by side varied from less than 25 bushels up to more than 50 bushels, it behooves us to consider the question of variety more seriously in the future than we have done in the past, for it is quite evident that an increased yield of from 10 to 25 bushels per acre may be obtained by simply selecting a variety adapted to a given environment, and then if a systematic effort is made to improve it by keeping in view a definite ideal, and selecting therefor, through a series of years, many desirable qualities can be rendered permanent, and undesirable characteristics eliminated.

This brief review of one year's work indicates clearly that the yield of corn can be materially increased by following simple methods of selection, which can be applied with profit by every farmer.

Blacksburg, Va.

ANDREW M. SOULE.

COMMERCIAL FERTILIZER ON GRASS.

Bermuda King Among Grasses.—How the Yield of Hay Per Acre May be Doubled, Trebled, and Even Quadrupled.

Editor Southern Planter:

It has been claimed that "He that makes two blades of grass grow where but one grew before, is a Public Benefactor." If so, then Mr. George M. Clark, of Connecticut, very readily "takes the cake" as such. For several years the yield obtained per acre by that gentleman has been enormous, exceeding five tons per acre, and, on limited areas, reaching seven and one-half tons per acre. The thoroughness of Mr. Clark's methods is responsible for the greater part of his success. This method consists in deep and thorough tillage of the soil, by which the soil is literally torn to pieces; it is then thoroughly "fined" by a free use of the harrow, and the surface made extremely smooth, heavily fertilized and heavily seeded. Mr. Clark's experience has been limited to Timothy and Red-top, Orchard grass and Clover.

Now we of the South, have in "Bermuda" the "King" among grasses. A grass that towers head and shoulders above any and all other grasses for first, quantity; second, quality, and third, tenacity and longevity of life, and is equal to any of them for palatableness, nutritiousness and digestibility. Drouths or floods cannot "phase" it; neither can heat or cold, when once a stand has been secured. It will stand any amount of ill-treatment and neglect (and this is invariably what it gets throughout the entire South), but it responds as readily to good treatment and liberal feeding as does any single one of the cultivated grasses, and it is to a wholesome consideration of this latter fact that we wish to call the attention of every one of our readers who is so fortunate as to own a Bermuda patch that can be utilized as a permanent meadow.

We will stop here long enough to say that red clover, vetch, and burr-clover will each thrive among Bermuda, the two latter making a good late winter or early spring pasture; while all three unite in enriching the soil, thereby making the Bermuda grow more luxuriantly.

Now, while it is true that Mr. Clark's thorough tillage, with consequent aeration of soil and liberation of plant food, had a great deal to do with his enormous and extremely profitable yields, the leading factor in the case, in our opinion, was his system of "high manuring." For his first crop, he put on at the rate of 650 pounds per acre of his so-called

"spring-dresser," composed of one-third bone, one-third muriate of potash, and one-third nitrate of soda. Second year, 250 pounds, and each year thereafter, 250 pounds.

Later he says: "There appears to be an advantage in using what I call the 'spring-dresser' in the fall. Perhaps we may find it to be as well to use part in fall and part in spring." Now, what he should have done would be to apply the bone and potash in the fall, reserving the nitrate of soda for the top-dressing in spring.

Bermuda does its best only on very rich soil. Dr. Ravenel, on a lot near Charleston, S. C., by the aid of nitrate of soda, obtained at the rate of ten tons per acre. Examples could be multiplied indefinitely as to the quantity of hay cut from this grass, also, as to its nutritive value; but, as above stated, it can only do its best on very rich land. We have seen thousands of acres of bottom lands where the stand was perfect, and sod complete, where the annual growth was not sufficient to justify going over it one single time in a season. Why was this? Poverty of soil.

To make good hay, and the largest yield, this grass must be mowed from three to five times every summer. This cannot be done where the growth is insufficient to admit it. In cases where this insufficiency exists, what is the remedy? Liberal fertilization. Grass is a very exhausting crop, and the fact cannot be too often stated, nor too strongly emphasized, that "meadows from which grass is cut year after year should be regularly fertilized every year in a liberal manner." For the grass crop, on continuous mowing land, a fertilizer rich in nitrogen and potash should be applied. Mixtures made up of acid phosphate, ground bone, and muriate of potash, in equal proportions, make very good dressings, if applied in sufficient quantity, 300 to 500 pounds per acre annually. The ground bone is given preference because it decays slowly, and thus furnishes a continuous supply of nitrogen and phosphoric acid. Don't get the erroneous idea into your head that the grass crop is less exhausting on land than are the cultivated crops. Nothing is farther from the actual facts in the case. Even permanent pastures become (in spite of the droppings of all the live stock confined thereto) so "run down" and impoverished that instead of furnishing nutritious grasses in abundance, they furnish but little else than poverty weed, wire grass, sorrel, and even moss. When in this shape, what is needed is—first, a free use of harrow to equally distribute the droppings and loosen and

thoroughly "fine" the surface; second, the application of 300 to 500 pounds of a mixture of equal parts of acid phosphate, ground bone, and muriate of potash per acre annually. Or, if a ready-mixed commercial fertilizer is preferred, or more easily obtainable, 500 pounds should be applied per acre annually, of a fertilizer analyzing 8 per cent. of phosphoric acid and 8 per cent. potash; and third, next to liberal feeding, practice liberal seeding, until a perfect "sward" is established everywhere. Naked places, galled spots, etc., pay no taxes, though the taxes are just as heavy on them as on the most productive part of the farm. They impoverish the owner and don't fatten live stock of any kind, and are an eyesore to every good farmer. The one only yet sure remedy is to feed the land, seed the land, and be sure to furnish a good seed bed for the reception of the seed; sow every seed in its right season, and don't put them in too deep. We prefer sowing on the surface, then "roll" or "drag" (but not harrow) them in. For Bermuda, use the sets cut up as fine as practicable and sow either by itself or with oats in early spring.

G. H. TURNER.

Little Rock, Arkansas.

GRASS GROWING IN THE SOUTH.

Editor Southern Planter:

As a practical farmer, I desire to say that in my opinion the article in the March number entitled "Grass Farming," is liable to mislead the readers of your paper, and that if every farmer accepts the advice given, many will be led into bankruptcy.

I have had a long experience with Bermuda and Blue grass. In comparing the utility of the two, it is necessary to take into consideration the length of the growing season and the character of the land for which they are suited. In this latitude, Bermuda grass will not make growth sufficient to graze sheep before the first of June, and the very first frost—usually by October 10th—kills every blade of it; so we have only a little more than four months of grazing from Bermuda grass.

Blue grass furnishes fair grazing by the 15th of April and is at its best by the 10th of May. Ordinary "Jack Frost" does not affect it materially—only the harder freezes, several times repeated, seeming to dry up the blades. I have never known the grass to be entirely killed out in winter here, and during the past winter we had most excellent grazing up to the 15th of January for cattle, horses and sheep. Stock kept in excellent condition on nothing

else, while the Bermuda grass has been dead so long we had almost forgotten there was ever such a grass on the face of the earth. We have spots of Bermuda in our Blue grass fields, and we consider them neither more nor less than pests.

I note that you append to the communication referred to, Prof. Soule's communication on Bermuda grass, which appeared in the Breeders' Gazette, and it is especially to that article I desire to direct this criticism. He says: "In composition, this grass (Bermuda) does not quite equal Kentucky Blue Grass, etc." I guarantee that you may take the opinions of one thousand practical, successful stock raisers who have had experience with both grasses, and not more than one in the thousand will consider it good judgment to favorably compare Blue grass with Bermuda grass in sections adaptable to both. I guarantee that they will, every one, laugh at the idea, and even Prof. Soule deemed it necessary to publish an extensive table of comparative analyses of the two grasses. Note, however, that in every instance, that the comparative analysis has been of the dried grasses; although four analyses are given, they are, every one, dried, water-free substances; although they have the word "fresh" in front of two of them. In two analyses the words read "Fresh or air-dry material," and the other two read "Water-free substance." What does he mean by fresh or air dry material? It is a well-known fact that no one ever pretends to cut Blue grass for hay—it is not used for that purpose. Then why should there be a comparative analysis made to test its value as dried hay in competition with Bermuda? It would be just about as sensible to test broom sedge against Timothy hay.

Now, in regard to farmers sowing this Bermuda grass in every field, as is apparently advised, I have this to say—that if it once gets well set, it will be next to impossible to ever cultivate the land again—certainly not without four or five times the amount of labor—and in the next place, unless the land is of a character adapted to hold its fertility, in a few years the condition of the farm would be this—fields set in partial or even fair stands of Bermuda grass, unfit for anything except scant grazing for four and one-half months in the year only—impossible to cultivate the land without enormous expense of labor, and consequently the farm could not be run at a profit. Soils of certain under-strata will not hold fertility; while others, with certain stiff clay substrata, will hold the fertility and, after such are once set in grass, for many, very many years, they remain fertile and productive. These soils produce and maintain fine sod.

If I were a farmer in the extreme South, where there was but little frost, I might be induced to sow Bermuda grass in limited quantities, for grazing only, and on lands that were not worthy of permanent enrichment. The Bermuda grass is certainly very hardy, perhaps more so than Blue grass, and yet, I know it is a fact that the further South you go, within the United States, the sweeter and more nourishing is the Blue grass. Warmth sweetens the grass, unquestionably. The Blue grasses of Canada and Northern New York are not relished by stock, nor will animals keep fat on them, as in Northern Virginia and Kentucky.

Mr. Charles Reed, who owned the Saratoga Race Track for many years, gave me his experience with Blue grass at Saratoga. (Northern New York). He bought several hundred acres adjoining the city, prepared it in the most scientific manner, made it extremely fertile, sent to Kentucky and had half a dozen men spend a whole season gathering Blue grass seed by hand and drying the same, to get the purest and best of seed, as the machine cut and cured seed, being put up in bulk, will heat and damage. Mr. Reed's land was prepared and sown under the direction of a thoroughly practical and scientific man, and waiting two years and half before turning his horses on his sod, which was as beautiful as the eye ever rested on, he found that the horses would scarcely touch it at all—much to his surprise. He had samples cut and sent to an agricultural chemist at one of the prominent universities in the North, and he analyzed it, as also, samples of the Kentucky Blue grass, to determine the reason why horses would not eat the Saratoga grass. The result was that the professor reported the Saratoga Blue grass as bitter, inclined to sourness, and his opinion was that the climate was too cold, and the soil not sufficiently genial to produce sufficient saccharine matter in the grass. At any rate, the farm was valueless for grass, so far as horses were concerned. I have no report from him as to whether cattle or sheep would eat it.

It is all very well for us to say that the heat in the extreme South kills Blue grass and prevents its successful growth. This may be true on sandy, light soils, but on rich, stiff clay and alluvial soils, it will grow as far South as New Orleans. As an evidence, look at the lawns in front of houses in far Southern cities. I draw the inference, therefore, that it is not the heat so much that kills the grass as the poverty of the land and the destruction of the grass by weeds. I honestly believe, from an extensive ac-

quaintance over that section of the country, that on rich land Blue grass can be grown without difficulty in any of our Southern States, and there is no doubt about the fact that it is the best grass for grazing that grows out of the ground. It would be criminal sacrilege, so to speak, to take a piece of land adaptable to Blue grass and put it in Bermuda.

Sometime last year the Southern Planter advised its readers that Japanese Clover was a valuable grazing crop. I was a little surprised at the advice, as you are usually very careful and conservative; but I must think that you have let the "advice of the late A. P. Rowe" of Fredericksburg lead you astray. In the first place, I believe Mr. Rowe raised nothing but Jersey cattle and hogs; and in the second place, he had his farm located on light soil, disposed to be craw-fishy, I believe, which doubtless your readers will recognize as pipe clay sub-strata. For that character of soil, and to be used strictly for cattle, Japanese Clover is all right; but do not advise your readers to sow that miserable, abominable pest on good, stiff clay soil that can be made productive of Blue grass. The life of Japanese Clover in our section here is from the 15th of June to the 15th of October—extreme limit. It is late putting out in the spring, and the first frost kills it dead. It chokes out the other grasses of more value, and is rank poison to a horse. It is the worst salivator of all the weeds or grasses that grow out of the earth—white clover not excepted—and a horse will literally starve to death running in Japanese clover up to his knees. Let some of your readers examine the tongue and lips of a horse that has been eating Japanese clover and they will find them a red-purple color, sore and inflamed, while the streams of saliva will flow from the mouth. Of all the enemies to permanent pasture land with any pretense to growth, Japanese clover is the worst. The man that brought the first seed to the United States ought to be burned in effigy by the stock-raising farmers. You had better sound a note of alarm, and caution your readers to fight the pest in every way possible.

WM. T. TOWNES.

Culpepper Co., Va.

We are glad to have our friend discuss this question of the comparative value of Bermuda and Blue grass. After some considerable experience with both these grasses, we are of opinion that both are exceedingly valuable but each have their limitations. In the hot coastal plains of the South Atlantic States, we believe that Bermuda grass is the greatest acquisition a stock owner can secure on his farm. On the limestone lands of the Piedmont sections of

this and other Southern States, Kentucky Blue grass is the finest grazing grass a man can secure. Our friend evidently agrees that climatic and soil conditions have much to do with the value of all grasses, as evidenced by his recital of the experience of his Northern friend with Kentucky Blue grass in New York State. Our own experience has always been that Kentucky Blue grass is a comparative failure on free-stone or sandy land, lacking in lime, and it is very difficult to secure a stand. On these lands, Bermuda is a perfect success. In this issue, we publish a communication from an Arkansas farmer who describes Bermuda as the "King" among grasses. Professor J. S. Newman, former Vice-Director and Agriculturist of the South Carolina Experiment Station (himself a Virginian); thus writes of Bermuda in a Bulletin published in 1902: "This most valuable acquisition to our list of pasture grasses seems to have come from India where it is called 'Dhab.' Until its great value as a pasture grass, and on moist, fertile soils as a hay producer, became known, it was regarded as a pest by the cotton planters all over the Southern United States. Many plantations in the South Atlantic States were abandoned on account of its prevalence upon them, which are now yielding more profitable returns from Bermuda pastures and Bermuda hay than were ever realized from the same fields while cultivated in cotton. There is a well authenticated record of 13,000 pounds of cured Bermuda hay per acre from three mowings during one season on the Oconee River bottoms in Georgia. Farmers who a few years since dreaded its appearance upon their farms as they did Canada thistle or the famous coco or nut grass, are now industriously planting Bermuda pastures and meadows." We know many Southern farmers who are now carrying a good head of stock on their farms who, without Bermuda pastures, could not graze more than a very few head. These men are improving their lands fast and saving the cost of expensive fertilizers. As to its value as a fat-making grass, we had the following statement made to us a few days ago: A gentleman from Illinois, owning farms in that State, a few years ago bought a farm in South-side Virginia, upon which was a large field well set in Bermuda sod. To compare the value of this field for cattle feeding with a similar area of land in Illinois well set in a sod of the grasses growing there, he put upon each field the same number of cattle of the same average weight and grazed them the same length of time. The cattle fed on the Bermuda sod in Virginia gained much faster and made much heavier weights than those grazed in Illinois in the same

time, and he is now an enthusiastic advocate of Bermuda grass.

Upon the question of the possibility of getting rid of Bermuda except at great cost when once established, we have to say that whilst it is no doubt tenacious of life—and this is one of its greatest recommendations in the South—yet, we know it can be killed out in two years without serious cost or loss if only the proper course is taken. It cannot stand shading. It loves the sun, and must have its glorious rays or it will die. We know a case where a farmer wished to put a field heavily set in Bermuda sod under arable cultivation for a few years. He plowed and worked it and planted corn for a forage crop, putting the rows only just wide enough apart to permit of cultivation and dropping the corn not more than 6 inches apart in the rows. With the aid of two or three workings, the corn got a good start and grew 10 or 12 feet tall and completely shaded the land. At the end of the summer there was very little Bermuda grass to be found. The next year, the field was in cowpeas, which made a heavy crop, and no Bermuda grass has since been found there.

We remark that our friend misapprehends the meaning of the table of analyses given by Prof. Soule in the addition that we published to the article. The first four lines of figures were analyses of hay from Kentucky and Bermuda grass. The first two lines give the contents of the grasses merely dried as hay is usually dried for storing. The next two lines give the contents when this hay is perfectly freed from all water by artificial drying. The next four lines of figures give the contents of the grasses in the green state, as ascertained when air dry and artificially dried.

And now, one word as to Japanese Clover and the charge that we have described it as a valuable pasture grass and advertised its being sown. Whilst we do not recall the particular article referred to, yet we do not intend to go back on what we then said. Probably it was answering some party who was complaining that Japanese clover was a troublesome weed. We have often this complaint to meet. We always reply that we cannot assent to such a description of any plant of the valuable leguminous family and especially of this one which seeds itself and will grow on the poorest land and gradually bring it up to a state of fertility capable of producing good crops of other kinds, and during its growth, will furnish even in this State good grazing for stock of all kinds, and in the States further South, will make hay crops of 2 or 3 tons to the acre of hay as

valuable for feeding purposes as red clover or alfalfa. We have seen it, even in this State, make a growth of 8 to 10 inches in length and carry a heavy head of stock per acre all through the summer. It may be that it causes slobbering in horses, but so also does red and white clover under certain conditions. It certainly does not hurt either cattle, sheep or hogs, but quickly improves their condition. With all these good points in its favor, we do not remember ever to have advised its being sown in Virginia, except upon Broom Sedge fields, or other land lying out and very poor. On these lands it should be sown, as it will root out the broom sedge, which is a pestiferous nuisance, as it not only makes a crop which nothing will eat after the first few weeks of its growth, but fills the cultivated fields and meadows with its noxious seeds where they grow and root out or spoil good grass sods. Whilst doing this good work, it also improves the land. We do not advise its being sown on lands in a good state of fertility in this State, because on these lands we can grow clovers and grasses capable of making much heavier yields than Japanese clover will, because of climatic reasons, and which will tend also to make quicker improvement in these lands. All the clovers and grasses especially have limitations as to proper places for their growth, and these limitations should be duly considered before seeding them. A great English statesman, once after listening to a complaint in Parliament from a member as to some dirt and filth in a certain place, replied that it was only "valuable matter out of place." So with the clovers and grasses and their local limitations.—Ed.

CURING SORGHUM.

Editor Southern Planter:

Last year I sowed six acres in sorghum. Five acres of these were harvested and housed as directed by Prof. Soule in February Planter; the remaining acre was bound into bundles as soon as cut and before wilting, then put into small shocks and kept there for several weeks, curing perfectly.

The feeding results have been surprising to me. My cattle wasted fully one-fourth of the sorghum from the five acres, but greedily ate without slightest loss that from the single acre. Cowpea hay white with mould was much preferred to the five acre hay, and was fed once daily without injury to either old or young animals.

To get the sorghum into bundles when cut with a mower is a tedious process, so this fall I will use a reaper for this purpose, and, as last fall, bind by hand and shock. R. S. LACEY. Ballston, Va.

EXPERIENCE IN ORIGINATING A NEW VARIETY OF FIELD CORN.

Editor Southern Planter:

The origin of a variety rarely fails to awaken interest. Those who are not familiar with the details of such work often associate something very strange and mysterious with the origin of varieties. While the work is simple, still, to originate new varieties; in the case of animals, we would say breeds; is one of the greatest works of the human hand. From these come better food and raiment, and in more abundance, to sustain life. A good farmer will always be willing to spend money in trying to obtain better varieties. Vast improvements are now being made in varieties and the farmer himself can do much of this work upon his own farm. This can be done by careful seed selection and by plant breeding, the details of which I will not attempt to discuss now.

It is most frequently the case that varieties are better adapted to the locality where they originate than when originated in entirely different sections. The farmer may order seed corn from any other locality and find it producing an overgrown stalk and ripening very late, and thus become discouraged with "new varieties of corn."

During the past two years I have been trying to improve my common field corn. One line of work has been along the line of selection alone and the other along the line of selection and plant breeding. Improvement has been made in both lines.

I started with an excellent "pedigreed" white corn that had showed a high per cent. of "protein," obtained from a prominent seed firm of Iowa. The ears carried their thickness to the tip end, and the rows were straight and even, the grains were wedge shaped, and came out over each end, but the ears were very short and the corn ripened a little late.

I had another very large, flinty, yellow variety that had taken a premium at one of the World's Fairs. The variety was early and the ears extremely long, but were too tapering at the tip end. The grains were too short and thick and the cobs were rather large.

After selecting the best ears I planted the varieties by the side of each other and secured a number of crosses. From the best white ears I selected grains that were of a golden color and showed the cross unmistakably. These were planted by themselves last spring. Last fall I gathered some most excellent ears of corn from this cross. They were better than

those of each parent from which I started. However, about half the grains on each ear had a deep golden color while the others were white. The ears were high up on some stalks and low down on others. The grains were very broad and deep and came out prominently to the tips. There were from seven to nine hundred and fifty large grains of corn to the ear. The corn is extremely solid and medium early. I believe I have the foundation started for an excellent golden yellow corn well adapted to my locality. I have none for sale. Further selection is necessary in fixing the type to a low heavy stalk and the grains to a uniform color.

The whitest grains from the best ears will be planted this year with the hope of obtaining a good bread corn as well as a stock food corn. If this cross fulfills its promise it will add about twenty bushels of corn to the acre in my crop. Of course careful selection of a good type of stalk and ear must be followed up to "fix the type." Barren stalks must not be allowed to fertilize the "shoots" on productive stalks. If the farmer would plant a small "seed piece" of ground by itself where he could improve his type of seed corn by selection and breeding it would pay well. Let us have "pedigreed" seeds as well as "pedigreed" stock.

R. H. PRICE,
Montgomery County.

Land to be planted in tomatoes should be plowed and worked so that it may be gotten into good condition for the setting of the plants next month. Tomatoes respond well to heavy fertilization; therefore, it always pays to be liberal with the manure and fertilizer. If manure is available in sufficient quantity, give a heavy coating and work into the land and supplement this with the fertilizer advised in our February issue, and, when the plants are set out and have commenced to grow, spread a small handful of nitrate of soda around each plant.

An asparagus bed ought to be in every farmer's garden. It is one of the most wholesome vegetables and comes in early. When once planted and established with proper care it will last for a lifetime. Usually asparagus beds are made by planting the roots obtained from seedsmen. Whilst this course if properly done will make a bed from which cutting can commence the year following, it is easier for most farmers to sow the seed in rows where the beds to stand in April or May. Sow in drill pretty thickly and thin out so that the plants stand about a foot apart and they will gradually fill out all the rows and give cutting the third year.

Trucking, Garden and Orchard.

WORK FOR THE MONTH.

The cold, wet weather which we have had all through the month of March to this writing (21st March), put a stop to the activity which was being displayed in getting the garden ready for and planting earliest crops, and practically no work has been done this month; April and May will be crowded with work. We want to make a strong appeal to farmers to give time to putting the garden into shape for the planting of the crops before beginning the work of getting in the crops on the farm. Too often in the South the work of attending to the planting of the garden, and the care of the crops when planted, is given over entirely to the women of the house, and they are expected to have a constant and abundant supply of vegetables for the table all through the year. They cannot do this, and it is unreasonable to expect it of them unless the farmer himself will give them his help at the beginning of the season by putting the land into good order and giving it plenty of manure and fertilizer. After the time for planting the crops on the farm has come, it is usually only with difficulty that help can be gotten from the man himself. This ought not to be, and will not be, if the man studies not only his own interest, but that of his family. A good and abundant supply of vegetables conduces largely, not only to the comfort, but to the health of every member of the family, and we would most urgently ask that before beginning the planting of the farm crops the farmer himself will give his help and that of his team in preparing the garden for planting. Have it all well covered with good rotten manure and supplement this with the special mixtures for the crops advised in our February and March issues. Then have them all worked into the land and lay it off in long rows so that the cultivation of the crops can be done with the team whenever needed, for which purpose only an hour of time now and again will be required. With this work done, the women can, with little help at odd times, plant the seeds and care for the crops.

See that you have a proper plan and apportionment of the land for the different crops laid out before starting, so that you have sufficient room to grow something of every kind, so as to have a constant succession of crops coming on. We can grow in the South almost every kind of vegetable, and of many of these can make two crops on the land during the

year. If you will do this and follow our directions as to planting in the different months, there will be no lack of variety for the table until winter comes.

It is yet too early to plant the main crops, except in the more Southern States. Wait until the land gets warm—say, until the end of the month or the first week in May, and then plant freely. At this time, in this State, and those adjoining, all that can be safely planted are: Irish potatoes, Cabbages and English peas. These, if not already in the ground, ought to be put in at once, when the land is dry enough. If cabbages were planted in the fall, they should be encouraged to make growth by cultivation. Spring-sown cabbages should be set out as soon as the plants are large enough. Towards the end of the month, onion sets may be planted and lettuce, radishes and other salad crops be sown. The seed of tomatoes, egg plants and peppers should be sown in boxes and these be put in the hot bed to commence growth ready for pricking out in beds to grow for setting out in the rows later, as soon as they are large enough and the weather is warm enough. In our last issue, we gave advice as to the making of the hot bed. It should now be in good order for bedding sweet potatoes to make plants for setting out next month and in June. If not made up, see that this work is done at once and that it is gotten down to a nice, steady heat as soon as possible, so that you may not have to wait for plants.

In the truck field, the strawberry, cabbage and Irish potato crops should be cultivated to encourage growth. This work in the strawberry field should be completed as soon as possible, as the plants should now be getting near blooming. If they have not made good growth, and do not appear strong and thrifty, give a dressing of nitrate of soda, 100 pounds to the acre, and muriate of potash, 150 to 200 pounds to the acre, and work in lightly. Nitrate of soda used as a top-dressing on cabbages will greatly help them and largely increase the yield of good heads.

Don't neglect the work of spraying in the orchard. In the March issue will be found full instructions. The use of the fungicides and, indeed, of nearly all other sprays, being more preventive than curative, it is essential if the work is to be effective that it be done before the trouble starts.

Live Stock and Dairy.

BREEDING HORSES WITH AN OBJECT.

Editor Southern Planter:

There is much horse breeding done on the farm at random, and too little thought given to the results by farmers not having clearly in their minds what kind of a horse they are breeding for. If we would keep clearly fixed before us what we wish the foal to make, and proceed with the distinct object in view of producing the desired kind of horse, much money and time would be saved and misfits would be fewer.

There are some who will breed all their mares to the same stallion, because he is a fine horse, expecting out of one mare across country horse, from another a fine roadster, and from a third, he hopes to get a good farm horse. There might have been some excuse for this some years back, when some districts only had one stallion, making the round from farm to farm. But now there are very few horse breeding sections in Virginia where you cannot find a thoroughbred, a standardbred, or a draft horse in a radius of five miles, as nearly all the surrounding stock farms own their own special stallions, which are always at the disposal of their neighbors.

Again, on the farms where they keep a special type of stud and mares; for example, say, for breeding to produce hunters, sometimes a brood mare will not come quite up to the requirements of a hunting dam. Instead of disposing of this mare by sale or using a stallion from a near farm, with some other object in view, they will breed on just the same to their own stud, hoping to obtain a hunter by some chance or another.

The theory that the sire gives the shape to the external organs and the dam affects the internal organization is by no means a positive rule, and generally the "organization of the foal is the mean of the two." The best rule in breeding is "that like begets like." So with a dam and a sire which fill their requirements, the foal will fill his requirements.

In picking out a mare for a dam, she should have a quiet disposition, free from the vice of kicking or any other bad traits. Her feet and legs should be firm and good, and if she has developed unsound feet, ringbones or weak knees, it generally shows that these were weak points in her make-up which developed easily into defects, and this weakness might be transmitted to her foal. Roaring and bad sight must, for the same reason, be strictly avoided. In

every respect, the dam should be equal to the sire.

In choosing a stallion to breed to, the same good qualities should be required of him as of the mares and the examination should be more rigid, as a mare's faults can only affect one foal, while his may pass to all the mares he is bred to. His disposition, feet, legs, wind and sight should be perfect. Also he should be well developed and have a hardy constitution.

When it is possible, it is better to breed the same stallion to the same mare as the season before, as she will be accustomed to him, and the chances are better that she will be got in foal earlier in the season than if she is bred to a strange stallion. Also two fairly good colts by the same sire, out of the same dam are of more value to sell as a pair than one good colt and one inferior colt by different sires, as these could not be made into a match pair. Of course, this combination is not essential in breeding hunters or saddle horses.

The following synopsis of the qualities sought by some breeders of hunters and driving horses, affords a good example of the care required to be taken to produce the type of colt that is sought.

A mare for breeding driving horses should have a medium bone, when a trotter is to be the sire and smaller bone, when a hackney is to be used. In height she should be from fifteen to sixteen hands.

In looking around for the sire for a driving foal we have two types to choose from, the standardbred or the hackney. They both have their backers and friends and are two distinct types of a driving horse. The conformation of the mare, when selecting between the trotters and hackney, has to be considered and given due consideration.

If the trotter is decided upon he should have good quality and breeding, and should not be too leggy, with a well filled neck and short, cleancut head. His action should be free and clean, stepping out in ground-covering form, with his hind legs well under him when he strides. If the hackney be given the preference, a good blocky mare should be chosen. His body should be short, closely knit together, hind quarters and shoulders heavy and muscular, neck thick and short with an arch or curve. He should have a broad head with a kind and affectionate look in his face, which adds to his attractions. His action, which is the main feature of the hackney, should be of the high knee kind, up and down, not

forward like the trotter. When he brings his feet down they should hit the ground firm and hard, showing force. His back action should not be too high, but in harmony with his knee action.

The mare, to produce hunting foals, should in height be from fifteen and one-half to sixteen and one-half hands, with large bone, well muscled hind-quarters and good shoulders, a short and straight back. The hunting sire should undoubtedly be the thoroughbred, but not too long in the barrel or delicate in bone and limb and should have straight legs, good quarters, deep chest and broad forehead.

Of course it is not always possible to find the ideal brood mare for a hunting dam or the ideal driving sire. But get as near to the ideal as possible for there is no excuse to breed from a small, frail mare, expecting a weight carrying hunter. And first get clearly fixed in your mind what kind of a colt you wish to obtain and keep this clearly before you in choosing the dam and sire. Thus when breeding with a distinct object in view, the result should be the object sought: MALCOLM G. CAMERON.

GLENBURN FARM (VA.) BERKSHIRES.

Dr. J. Kirk, of Glenburn Farm, Roanoke, Va., writes us that he has just returned from a trip West, where, in Illinois, he bought two splendid Lord Premier sows, bred to Premier Longfellow, the Grand Champion of the Universal Exposition, and two superb Combination sows bred to the great Masterpeice, the highest priced boar amongst the Berkshires. Before leaving White Hall, Ill., where he purchased two of the sows, he had the pleasure of having handed to him a letter of congratulation on his purchase, signed by the following noted Berkshire breeders: Charles F. Mills, Reuben Gentry, W. S. Corsa, G. G. Council, N. H. Gentry, A. J. Lovejoy and C. W. Jessup. We join with these gentlemen in their congratulations. Dr. Kirk's herd is now one of the finest in the South and the equal of the best anywhere in quality and breeding.

TEXAS FEVER TICK EXTERMINATION.

Editor Southern Planter:

I have been reading with great interest of the efforts to be put forth to exterminate the Texas fever tick for the benefit of the live stock interests of the States south of the quarantine line. This is beyond a doubt a laudable undertaking and should have

the support of every stockman in the Southern States. Unfortunately it is not a project to be easily accomplished and to depend upon National or State aid alone to do this work will not bring much success. As explained by Prof. Soule in a recent issue of "The Planter," it will require the concerted effort of all interested in the cattle industry of the States. Individual effort has its merits but the concentrated effort of all the stockmen will more surely bring about those beneficial results we so much desire. Let the tick infested area be cleared of the pest and there isn't a cattleman in all Virginia who won't be benefited thereby. Without a doubt there are many men below the quarantine line in the State anxiously awaiting the time when, by the removal of this tick, pest, they will be able to launch more extensively into the cattle business. What would that mean to those above the line now engaged in the breeding of pure bred cattle? Would it not practically double the natural field for the disposal of their surplus breeding stock? It would mean to them what is often repeated in intensive farming advocacy, "making two blades of grass grow where there was only one," as it would open the possibility of selling two head where only one is sold now. Should not that consideration appeal to the breeders? Where is their natural market? Can they expect much of their surplus breeding stock to go North of the Mason and Dixon Line, where they are brought into strong competition with Ohio, New York and local breeders? No, it is to their own vital interest to join hands with those below the quarantine line and bring about the riddance of that which is throttling the cattle industry of the South. Compel recognition of the vital needs of the live stock industry of the State at the hands of our law-makers! Let us insist on an appropriation from the Legislature to carry out this work, and on the passage of a "No Fence Law" for the full protection of the agricultural and live stock interests on which the further prosperity of the State depends.

Under existing conditions what an abomination confronts the man who is trying to improve his farm by systematic rotation and the introduction of pure bred stock. I have reference to that detestable practice of turning loose when fall comes, of all kinds of stock and letting it wander where it pleases, without one iota of regard to your neighbors feelings. Is it a pleasant sight to any one who takes pride in the cultivation of his soil and the crops he raises, to see perhaps a couple of horses, or may be a herd of cattle or a pack of razor-back hogs; with more rooting capacity than a steamplow, on your field of oats, rye,

wheat or whatever it may be, after a rain or thaw, when the ground is soft. With all due respect let me ask, is it a wonder a man is tempted then to go for his Winchester and take vengeance. What is the use of trying to make two blades grow where there was only one before. You are certainly not likely to reap them with such practices. But not only is the damage to your crop to be considered, but think of the danger of contamination to which your pure bred breeding stock is exposed.

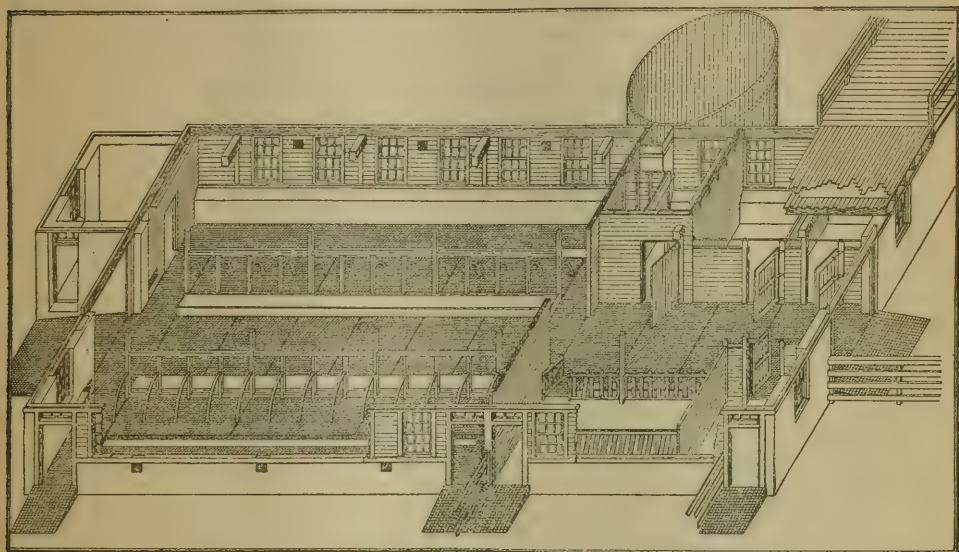
Then again, another evil is fostered, in that strav-

ing cattle are continuously infecting land with the tick pest, that might otherwise be cleaned. These are vital points to be considered and should not lightly be passed by. The man or men who are so situated that the opportunity is given them to do this good to the State and his fellow man, and shirks it, is not worthy of the recognition of honest men.

Any move in the direction above indicated will find hearty co-operation at Hunter's Fare Farm.

H. B. BUSH.

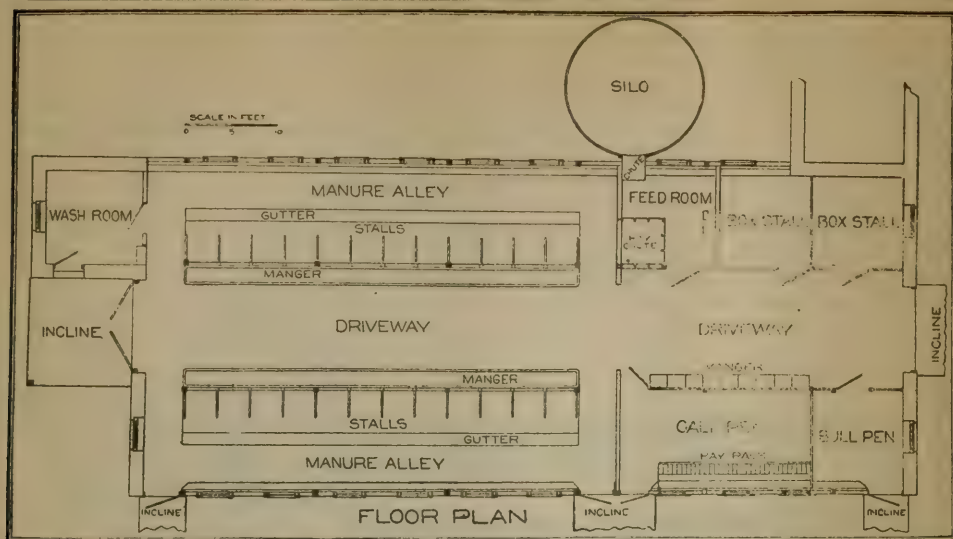
Powhatan County, Va.



COW BARN.

We have had several enquiries for plans for good cow barns, but until now have not been able to secure plans of such a one as commended itself wholly to our judgment. The Department of Agriculture at Washington wrote us some time ago that they were hoping shortly to publish plans of a barn which they were getting up from details supplied by different stock keepers. We have now received this plan from them and have had cuts made which we herewith publish. The barn is designed for 24 cows, with calf pen and box stalls for bull and cows, also space for feed room, hay chute, wash room and silo. The width planned is 36 feet 4 inches outside. This width allows ample room for stalls and passage ways and permits of an economical use of lumber in building. The planned length is 84 feet 9 inches. This, of course, can be either lengthened or shortened ac-

cording to the number of cows desired to be stabled. The side walls are built of stone or concrete up to the window sills, the balance of the walls being frame. The end walls are constructed of stone or concrete up to the ceiling. A partition extends across the barn, so that the cows can be entirely shut off from the other section. The posts carrying the upper floor are 6x6, the girders 10x12 and joists 2x12. The window space provided for gives approximately 6 square feet for each cow. Nothing is so essential as plenty of light and air in a stable. The windows are sliding sash, thus permitting of the admission of abundant air when needed. The width of the stalls is 3 feet 6 inches; the depth 4 feet 10 inches, which may be increased or decreased as desired by taking up more or less of the passage space. The manure gutter should be 16 inches in width and not over 4 inches deep. The manger, as planned, is 2 feet



FLOOR PLAN OF MODERN DAIRY BARN.

wide and 6 inches deep. The depth we would increase to 12 inches so as to prevent the wasting of grain feed by cows throwing it over the side. The entire floor, as planned, is concrete, 6 inches in depth when finished. Concrete, whilst hard to lay on, is not objectionable when plenty of bedding is used, but where this cannot be assured or where saving of cost is an item, we would make the floor under the cows of clay, beaten hard, and concrete only on the space behind the stalls in that part of the barn where the cows stand. Concrete for the rest of the floor makes the best of floors because of its durability and ease of being kept clean. The alleys behind the cows are 4 feet wide, giving ample room for a manure truck to clean out the barn. The calf pen shown is 21x11 feet, with manger and hay rack. The bull pen and

box stalls are 10x10 feet. The feed room is centrally located and has a chute from the silo and two grain chutes from the upper floor. A hay chute delivers the hay from the upper floor in the feeding alley. There is also a good wash room, which should be provided with a boiler for heating water to wash cans and utensils, and where a separator may be run. The plan provides for a silo in connection with the barn. The one planned is 16 feet in diameter and 28 feet high, and has a capacity of about 110 tons; sufficient for 24 cows for six to eight months. The floor over the cows, where the room above is used for storage of feed should be double boarded with paper between. The driveway to this second floor is located on one side of the barn at the end, thus not shutting off light from the floor below.

SHEEP PARASITES.

Three Parasites that Inhabit the Stomach and Intestines of Sheep.

Editor Southern Planter:

There is a long list of sheep parasites, but there are three that are very common in Virginia and the other States of the South. These parasites are increasing every year, and it is high time that sheep raisers everywhere should be informed concerning them. These parasites are the *Strongylus contortus* (stomach worm), the *Oesophagostoma columbianum* (modular, or knotty gut worm), and the Segmented tapeworm. Few persons have ever considered the extent of the losses to American sheep raisers caused by these parasites. In the State of Ohio alone, the annual losses during a period of years amounted to \$500,000. A very small per cent. of the losses were ever known, as thousands of lambs perished without the owners knowing the cause of the death. Back in the eighties Ohio furnished more lambs for the mutton market than at the present time, although hundreds of farmers are every year embarking in the sheep business for the first time. The

num (modular, or knotty gut worm), and the Segmented tapeworm. Few persons have ever considered the extent of the losses to American sheep raisers caused by these parasites. In the State of Ohio alone, the annual losses during a period of years amounted to \$500,000. A very small per cent. of the losses were ever known, as thousands of lambs perished without the owners knowing the cause of the death. Back in the eighties Ohio furnished more lambs for the mutton market than at the present time, although hundreds of farmers are every year embarking in the sheep business for the first time. The

flocks of mutton sheep are much smaller now, and many of the old sheep farms are out of the business entirely. In 1894 the writer traveled through Central Ohio, and can not recall a single lot of healthy lambs, though he saw thousands. The same story can be told of West Virginia, a part of which story is real experience.

In some sections of Virginia these parasites are increasing rapidly, until now it is very hard to find a flock of healthy sheep. Down in Southwest Virginia, where the larger farms are just taking up sheep, I found many flocks that were practically free from these parasites. Some men who have for years raised large numbers of lambs for the market knew nothing of the stomach worms and had never seen lambs affected as I described. This is a splendid sheep country and these men are mighty lucky. But these men are the ones above all others to whom I wish to write. These parasites may be prevented, but it is very doubtful if sheep can ever be restored to health, if they are ever once seriously affected.

I shall treat each of these parasites under three heads, viz., life history, prevention, and treatment.

The stomach worm deserves first consideration, for it is the most formidable in our section. The biologists do not agree entirely in regard to the life history. It is surprising to note how slowly the facts in regard to the development of these parasites are worked out, though some of the best biologists have studied them for years. This parasite inhabits the fourth stomach and the first portions of the intestines. It looks much like the gape worm of chickens and is not far from the same size. You know what a puzzle the gape worm of chickens has been. I am convinced that the life history is very similar. A careful study of both will bring out many resemblances. The female strongylus is about an inch long and seems to have a pink stripe running spirally around it, like the stripe on peppermint candy. This stripe seems to be the ovary or oviduct and is literally packed with eggs. These little oval eggs, too small to be visible to the naked eye, are evidently ejected in the alimentary canal of the sheep, become mixed with the food and are thus passed out with the droppings. They may be found in the droppings in large numbers with a small microscope. Here we lose track of the development. In stagnant water are found many similar worms, but no one has ever been able to show their connection with the strongylus. It may be that the eggs get scattered over the grass and are taken up by the lambs in grazing, and are then hatched out in the warmth of the

alimentary canal. This will explain the fact that old pastures seem to infect sheep more quickly than fresh pastures.

On the other hand, we see no reason why hundreds of eggs cannot be retained in the alimentary canal until their period of incubation is past, thus adding to the parasites already present. It would seem that this way alone would explain these parasites passing through the severe winters of the mountainous sections of Virginia. In the warmer sections of the South, they seem to multiply more rapidly, while in Canada there seems to be much less trouble from them. I would like to think that this indicates that the eggs that are passed out with the droppings are put out of business in cold winter weather.

It is a fact that lambs suffer more from these parasites than old sheep. It has been reported that suckling lambs, too young to graze, have died or become enfeebled from stomach worms. Whence the source of these? The liquid portions of the droppings could be caught in the wool about the udder and the eggs could be easily transferred to the lambs.

Prevention is certainly the best remedy for stomach worms. Once lambs become infected I doubt if they ever attain to their best growth. It seems to sap their strength and upset their organs. Inflammations may arise in the alimentary canal from which they never recover. So, if you expel the worms with medicines, or if the lambs survive the attack and pass through the winter, you will never make much of them. The hope of the sheep breeder is prevention. If the crowded flocks of England that have pastured the same fields for over a century, have escaped, it does seem that there is hope for us, with our vast acreage. It may be that we are not ready for the careful methods of England yet, though we will come to it some day, when our farms are smaller, for it will be our only hope. There are three precautions that any man can observe, which I feel sure will pay well. (1) When you buy up a lot of stock ewes in the fall, put them on pastures that you will plow up for corn in the spring, and before turning them out to new pastures in the spring give them a thorough treatment of gasoline to expel any worms present. (2) See that your sheep don't lie under the same trees all the time during the day-time. If the boundary has only one or two shade trees, you should give them access to your sheds, or construct movable shelters for them. You will be surprised to see how gladly they will seek the protection of the sheds, if they are allowed to get to them. I have known sheep to walk a half mile to cool, dark

sheds to get out of the sun and avoid the bothersome gad flies. If there are several trees or clumps of bushes in your pasture fields, see that they are not in the habit of resorting to one place. If necessary, move them every two or three days. (3) Make a solemn resolve that you will pasture no field on your farm more than three years in succession with sheep. Use one part of your farm largely for cattle and horses, while you are keeping sheep on another part. This is feasible, if you do not want to pasture sheep and cattle in the same pasture, which is so seriously objected to by some. After a period of three years, you can exchange pastures. I might add that it is a fine plan to keep your lambs as much as possible on your meadows, which must be clean. I think we saved hundreds of dollars on Edgewood Farm by this plan. There could be no objection to changing your sheep every year. This would be best, but it is often impossible. The ideal plan is to change pasture every month. We will come to this some day. At present let's do the best we can towards bringing about these conditions.

I feel sure that I have covered in these precautions all that one would need do for preventing the spread of the parasites named in this article.

Before dismissing this subject it may be well to re-cite some incidents that came under my personal observation that showed the importance of choosing also high and well-drained pastures for sheep. Having been called to examine a large flock of sheep and advise about change of handling, I was horrified to find as miserable looking creatures as it has ever been my lot to see. Dead sheep were in evidence everywhere, while emaciated, half bare, unsightly specimens were dragging themselves around after the flock. I could not find a single sheep with a pink skin in that whole assemblage. These sheep had been fed liberally all through the winter on hay, fodder and grain. They had ample range and sufficient pasturage. One of the worst sheep was killed, and on examination showed five forms of parasites and nearly all the organs badly deranged. Much of the pasture was low and wet and stagnant water stood in small puddles everywhere. What a breeding ground for sheep parasites! It was impossible to handle the whole flock on high ground, so I advised doing away with the whole motly gang, except a few of the best, which could be kept under better conditions. These sheep were carefully treated to expel the parasites and moved to hill pasture and made to drink only from the watering troughs, which could be kept clean. After two months I saw these sheep again and was

surprised myself at the transformation. There were several of them actually putting on flesh, which must have been a new experience to them. They seemed with one or two exceptions to be in fair condition. These were badly affected with the knotty guts and were disposed of. I am sure the owner learned how to keep sheep, even if he was so situated that it was not practical for him, with most of his farm in the bottoms. No profit in trying to raise sheep on land that is the breeding ground of every form of parasite. It is hard, at best, to fight them.

So much for the life history and prevention of stomach worms; but many of my readers have infected flocks, and by the middle of June they will have pale, coughing, harsh-wooled lambs that are on the way to the bone yard. Is there any hope for these unfortunate ones? There is no reason for losing lambs from stomach worms, if you take the matter in hand before the lambs get down. Administer two doses of gasoline after fasting, on successive days. The dose for a sixty pound lamb is a tablespoonful well shaken in about six ounces of milk. The plan for drenching was given last month. It will be well to observe all the care possible, for this is a deadly dose if it goes wrong. It won't take much down the windpipe to kill. It is bad enough to send it right. It often intoxicates lambs, making them reel and fall over, and has killed. I have dosed hundreds and never lost but one, and I think this one had a bad heart. It may be well to have a little aromatic spirits of ammonia on hand, as a heart stimulant. This dose will certainly drive out stomach worms. I won't say it will kill them. Some whose word may be trusted say that gasoline won't kill them. The thing you want to do is to get the worms out. A one per cent solution of creosote has been found quite efficient, also, but this is a bad dose, too. Better prevent this trouble than try to cure it. After treatment the lambs should be turned to meadow pasture and fed liberally with oats and bran for some weeks.

If the stomach worm is a hard problem for us, what will you say to the *Oesophagostoma columbianum*? This curious little worm inhabits, generally, the large intestine. He bores his way through the mucous lining, and by his irritation causes the growth of a tumor, or knot in the wall of the intestine, which at first is filled with a sort of cheesy substance, which may harden into little calcareous kernels that are as hard as rocks. The worm thus becomes encysted, and just how he uses these cysts for his growth is a puzzle, or what becomes of the little rascal is a mystery still. It is almost certain that

the eggs produced by the females are deposited in the alimentary canal and are carried out to the ground with the droppings, where they await their innocent hosts. Old pastures soon become deadly, because of these eggs and it is thought that they may, in the summer time, start their development in stagnant water. In the Northern States this parasite does not seem to be so bad, but, as you get into the South, you find the flocks more and more infected. It is rare to find these cysts in lambs in Virginia, while older sheep nearly always show them. In Georgia you may find them in lambs two months old. Lambs soon dwindle away when badly affected. Old sheep can stand them until the absorptive surfaces of the intestine are almost entirely covered by these cysts. The cysts do not disappear with the death of the worm, but the centre only hardens and remains as a knot. This knotty condition may extend back along the small intestine, until the whole intestine is a mass of knots. As these knots make holes in the walls of the intestines, the sausage casing industry must turn to something else than sheep in the South. The disease is not unknown among hogs, so I guess this business will go under. You can at once see that there is no use in trying to dose for these worms that have become encysted and, as far as I know, no medicine has proved effective. We are forced to preventive measures, and the directions given for stomach worms will prove successful in this case, also. As this disease is dangerous only when neglected, it seems to me that ordinary precautions will save losses. Experiments that have been conducted at the Experiment Station of Louisiana seem to show that it is almost a hopeless fight in the far South, but I have not despaired yet. Certainly it appears that lands in the South that have never had sheep upon them are infected with these parasites, which shows that they have other hosts than sheep. It has long been known that rabbits, goats and deer harbor these parasites and also the *strongylus contortus*. In Virginia I hope that the conditions are not so serious. I feel sure that the losses among lambs will be small if the precautions mentioned are practiced.

The Tape worm seems to be no respecter of persons or animals. There are a number of these queer worms, one of which is very common in the human family, though it is surprising how few people know much about their nature. Certainly a young Jew, who was striving to emulate his shrewd father in selling goods, lacked instruction. He had heard his father explaining to a customer the high price of his silks—"The silk worms have died out during the win-

ter." It fell to his lot to sell some tape; naming an unusual price, the lady objected. "Vy," he hurriedly explain, "de reason for the high price vas plain; the tape worms vas all killed last winter." Well, we have quite a different type in our sheep. The dog seems to be a favorite host for tape worms, and, undoubtedly, he spreads the eggs of these worms over our pastures. The worst form for sheep is a broad, segmented, ribbon-like worm that may grow to enormous length. They have been found thirty feet long. The segments of these worms are easily broken off, and, as the eggs are produced in these segments, the broken off segments passed out with the droppings, may infect others of the flock.

If your flock is infected you can see these segments as soft, white, slimy masses in the droppings. They are easily distinguished by the striations, or fine lines that are seen running across these segments. As these worms grow very rapidly, we can in a few months have very large ones produced in the intestines of lambs, started from an egg picked up on the pasture. I never believed that these worms produced serious ravages in a flock, but I am sure that they should be guarded against. Affected animals should be removed from the flock and pastured upon land that will be plowed. The other sheep should be at once removed to new pasture and careful watch made for these segments in the droppings; and it is often hard to locate the guilty party. These infected sheep should be removed until the trouble ceases. The infected sheep should be treated with male fern or some other standard tape worm medicine that any druggist could recommend. It is very necessary that a sheep badly infected and under treatment should be given regular doses of the tonic mixture composed of equal parts of iron, gentian, and ginger, and the feed must be kept up, even if the sheep must be drenched with kruel. Such sheep are often very pale and weak and lose flesh very rapidly. It is not necessarily a fatal disease. After a certain period the whole tapeworm is passed and the sheep is safe until infected again.

The parasite problem must continue to harass the sheep raiser, but there is no reason for giving up the fight. Great progress has been made during the last ten years and we feel confident of ultimate success. Men who have fresh pastures have nothing to fear if they manage their flocks properly, and I see no reason why those who have been subject to great losses from parasites should not, after resting their pastures for a few years, begin over again and continue the sheep business indefinitely without loss.

Decatur, Ga.

H. B. ARBUCKLE.

The Poultry Yard.

POULTRY NOTES.

April is the month for eggs and chicks. Hens usually lay more eggs during the thirty days of this month than any other like period in the year and eggs are also more fertile and hatch better. This is the natural month for hatching and the best one. Where hens are used for hatching they must be watched carefully and should be kept free from vermin. Where one can and has the right breed of fowls I think chicks can be hatched with less cost and trouble in this way than in incubators. One cannot hatch so early and many in this way but the average farmer can do better where one or two hundred chicks are wanted. If hens are properly housed and fed it is no uncommon thing for them to hatch ninety per cent. of the eggs. I have never been able to do this with any incubator. We read in the catalogues of 100 per cent. hatches but I have never seen one. I do not say that it is not possible, but I cannot hatch over eighty to eighty-five per cent. and early hatches average about fifty per cent. There is nothing gained by misrepresenting the cold facts. As I am writing these notes sitting between two incubators full of eggs I hear the chirp of newly hatched chicks in a new 364 egg machine. These eggs were put into the machine Feb. 28 at 4 P. M. and I am writing these notes at 9 P. M., March 20. The machine contains 303 good, strong chicks in the shell. At 12 M. to-day one egg was pipped. At this moment 6 are out, and very many eggs broken half way around, and everything denotes a good hatch. But "don't count your chicks before they are hatched" is as good now as ever, only I would amend this by adding "and not until they are three weeks old." These chicks will remain in the machine until the morning of the 22, then they will be put in brooders, 30 in a 22-inch hoyer, and given fresh water, fine grit, finely cracked corn and wheat with some oatmeal flakes. The brooders will be kept at 90° day and night for 3 or 4 days then gradually cooled down to 65° by the tenth day. Fine chaff from the feed way in the barn will be put in the brooders and the chicks will be confined to the brooders. Total floor space 8 square feet. Our first hatches were treated this way and we have lost very few thus far. I have experimented with various chick feeds and have never had as good results as with good, home-made feed. The same is true of meat for them. If

there is any real good, dry beet scrap, I have not been fortunate enough to get it. I use it for laying hens, but if I can get good, lean beef cheap enough, I buy that for chicks. The cheapest part of the beef is just as good as any so it is free from fat. Grind it with a meat mill or sausage cutter and feed about one pint to every 100 chicks after they are 10 to 12 days old. Feed this 3 or 4 times per week and watch them grow. If you have never fed a lot of chicks in this way, try it a few times and see the fun. I have gone into the brooder house many times with a pan of this feed for them and have 50 of the little fellows on my hands, arms, shoulders, head—anywhere that they could alight. Have actually had them creep into my pockets. If there is anything in the world that will make them "get busy" it is the sight of the meat dish. I intend to "hopper" feed all of our chicks this year as soon as they are 4 weeks old. I shall put each kind of grain in a separate hopper and keep grit and charcoal and the best beef scrap that I can get before them all the time. Up to four weeks old, I will feed them in chaff and give them fresh beef. I will do this to save time and try to mature the pullets so they will begin to lay in August or September. I believe I can get all February and March hatched pullets fully matured and laying by September.

I am still receiving inquiries daily about managing incubators. Please remember I cannot tell you how to operate your machine in your location and with your eggs. I do not manage my machines twice alike. There is always some difference in eggs, in temperature, in humidity. My wife is operating one machine herself. She selects her eggs and does not allow me to "look her way." She ran the last hatch low in temperature from start to finish. 100 degrees first week, 101 second, and 102 the last week. I had my opinion but had to keep it. She weighs about 100 pounds, but say, it's the biggest hundred I ever saw. Her eggs were dead as nails until the morning of the 21st day. Then we heard signs of life, and by the evening of the 21st day, the machine was a squirming, wiggling mass of chicks and empty shells. She made a good hatch and the chicks are the largest, plumpest lot of youngsters that I have ever seen in an incubator. She used no supplied moisture from start to finish, and had ventilator wide open nearly all the time. There was not a weak or crippled chick in the lot, and they are keeping right

on growing. She has the machine "loaded" again and is running it lower still. She says that the chicks will grow this time before she takes them out. I wonder? There is no pluck like the pluck of a plucky woman.

Do not forget to plow up as much of your poultry yards and runs as possible and sow to rye, clover, oats, vetch and some mustard. Sow it thick and then some more. Try it this way. 3 bushels rye, 3 bushels oats, 50 pounds spring vetch, 15 pounds clover, 5 pounds mustard. Keep hens off until it is well up, if you can. This amount of seed will sow an acre, but sow it on three-quarters, if you cannot spare the acre. It will make a fine, thick turf in a few weeks and yield an enormous amount of feed.

Look out for lice and mites. If you think your flock is free from lice, catch the smallest and weakest male in your flock and look below the vent. If you don't find lice, your flock is all right. Spray the house and roosts once each week from now till September 1st with crude carbolic acid and kerosene oil, equal parts, and you will have no mites. Keep a loaded shotgun handy for hawks, jackdaws, dogs and—.

It is now 10:45 P. M., and there are so many chicks on the trays that it is impossible to count them. I think the hatch will be a good one without further care, so I will bid you all good-night and lay aside all care and worry with the pen that has penned these notes.

CAL HUSSELMAN.

Roxbury, Va.

RHODE ISLAND REDS.

Editor Southern Planter.

For years I had not seen a copy of the Planter until I subscribed to it recently, and the February number reached me. I was astounded. I had no idea that a farm journal of such excellence was published in our Southland. It appeals to me in many ways; editorials are eminently sane, contributed articles helpful, advertisements safe and copious, and general get-up pleasing.

Perhaps the most surprising feature to me was the great number of advertisements of Rhode Island Red fowls it contains, which fact proves to my mind more than any thing else, that the "New South" is indeed awake, and will not reject a good thing because it is new. Thinking over this it occurred to me that the experience of one of the earliest breeders of

S. C. Rhode Island Reds in the South might be made both interesting and instructive to your readers.

This breed is red in color throughout, except for a penciling of black in hackle and black under flights. They are clean-legged, and about the size of the Plymouth Rocks. As is generally known, the breed was originated in the swampy districts of Rhode Island and Massachusetts, more than fifty years ago and has been the mainstay of thousands of these "farmers," of those States. The land was worthless for farming, no known breed of fowls was profitable there, so "necessity was the mother of invention." Within the last few years the breed has become known the world over, type and plumage have become fixed, and the breed has been admitted to the Standard of perfection.

For four years I bred them side by side with most of the popular breeds; in consequence I have discarded all others. I have found them almost disease-proof, heavy layers of big pink eggs, splendid setters and mothers; and the fastest growers of all chicks. How hard it is to keep a Plymouth Rock hen from getting too fat to lay! An axiom with Red breeders is "you cannot fatten a Red hen that is laying." I have a Red hen four years old that has been trap nested from the first. She has always been a wonderful layer, but from November 1st last, to March 10th, when she became broody for the first time, she laid eighty-five eggs. No breed can parallel this case, except Reds.

May I state the reasons for the supremacy of the Reds?

1st. It is red, the strongest color, the color of the strong.

2nd. It is the only breed made by out-crossing, and it was originated in an environment that permitted only "the survival of the fittest."

3rd. Being a blend of Red Malay Game, Cochins, China and Leghorns, it has the vigor and activity of the first, the docility of the second, and the egg-capacity of the third.

J. H. C. WINSTON.

Prince Edward Co., Va.

RED POLL CATTLE.

They have a three-quarters blood Red Poll cow at the Wisconsin Station that has made a record of 652 pounds butter in one year, yet there are men who claim there is no such thing as a dual-purpose cow, and even some State fair managers have stricken the Red Poll cattle from their list.

The Horse.

NOTES.

The Virginia Horse Show Association meeting in Washington, D. C., was quite an important affair and furnished ample evidence that a prosperous season may be expected, as indicated by reports from the various local associations. All of the latter seem to be in good financial condition, while a decided tendency was also shown to have more racing than formerly along with the regular horse show programmes. Charles Mulliken, the well-known owner, breeder and exhibitor, of Boyce, Va., was re-elected president of the association, while J. Jenkyn Davies, of Manassas, Va., for years a familiar figure in horse show circles, was chosen to fill the joint position of secretary and treasurer. The joint exhibitions of the Virginia State Fair Association and Richmond Horse Show Association, brought up much discussion and it was the unanimous sentiment that horsemen should unite and make a great exposition of horse flesh at Richmond this fall. Representatives as follows were at the meeting: R. N. Harper, Leesburg; Rozier Dulaney, Upperville; J. F. Latham, Culpeper; Charles H. Hunkamp and A. Randolph Howard, Fredericksburg; W. N. Lipscomb and J. Jenkyn Davies, Manassas; L. S. Ricketts, Orange; S. H. Ellerson, Staunton; Dr. John A. Meyers, Harrisonburg; W. P. King, Front Royal; R. P. Page, Berryville; C. W. Smith, Warrenton; H. B. Goodridge, Norfolk; J. T. Anderson and W. O. Warthen, Richmond.

Lynchburg, formerly a member of the circuit, was not represented and will hold no show this year, while Norfolk precedes instead of following Richmond, as during previous seasons. There are fourteen shows in the circuit, of which twelve are open air affairs, while the exhibitions of the other two, Norfolk and Richmond, are held under cover.

Dates decided upon follow:

Leesburg, June 7 and 8; Upperville, June 14 and 15; Culpeper, July 4 and 5; Fredericksburg, July 11 and 12; Manassas, July 18 and 19; Orange, July 25 and 26; Charlottesville, July 31 and August 1; Front Royal, August 2 and 3; Staunton, August 7, 8 and 9; Harrisonburg, August 14, 15 and 16; Berryville, August 21, 22 and 23; Warrenton, August 29 and 30; Norfolk, October 1 to 6, and Richmond, October 8 to 13.

The sale of Millburn Farm, near Calverton, in Fauquier county, Vt., by Samuel McMillan to J. W.

Latham, owner of an adjoining estate, marks the passing of one of the largest trotting horse breeding establishments in the State. The farm was established in the early nineties and, from the beginning, horses of note have been owned and bred there. The owner, well known in New York as former president of the Driving Club of New York, Park Commissioner and owner of fast trotters, sought diversion from business cares in his breeding operations at Millburn, but distance from the "Metropolis" induced the sale of Millburn, and now the horses are to follow. An auction sale of the latter will be held on the farm, Friday, April 6th, and the offerings include colts and foals, the get of Gov. Stanford, 2:21; Belmont Prince, 2:17½; Millburn, son of Guy Wilkes; King Lancelot, the brother to the famous Dare Devil, 2:09, etc.

Among the brood mares are noted matrons like Miss Copeland, grand dam of the world's champion trotting gelding Maj. Delmar, 1:59 3/4; Deception, dam of Flirt, 2:07½, and others whose producers may render them just as noted in the future.

Certificates have been granted by the National Hunt and Steeplechase Association to Lee Evans, Chichester and Dion Kerr, of Warrenton, Va., to ride as gentlemen riders this season. The Messrs. Kerr are sons of Dr. James Kerr, of Washington, D. C., widely known as a physician and surgeon, and a successful breeder of thoroughbred horses at the Antrim Stud Farm, Warrenton, Va., where he has several stallions and some choice brood mares, among the latter being Valorous, dam of the Steeplechase Follow On.

Edward Hall, of Washington, D. C., whose horses are mostly kept at Bealeton, Va., has purchased of Dr. J. T. Keen, Hamilton, Va., the well bred trotting stallion Kushan, 2:20½, a bay horse by Kremlin, 2:07 3/4, dam Rusalka, by Mazatlan. Kushan is now in the stable of the Virginia trainer, Alonzo Corbin, at the Brightwood track, Washington, who will prepare the son of Kremlin for the races and campaign him this season.

Among the classes taught by Dr. J. G. Ferneyhough, V. S., at the Virginia Polytechnic Institute, Blacksburg, Va., is one in "Horse Judging" and a number of the best students there have become interested in the work.

BROAD ROCK.

Inquirers' Column.

Inquiries should be sent to the office of the Southern Planter, Richmond, Va., not later than the 15th of the month for replies to appear in the next month's issue.

CUCUMBER GROWING.

Please give information as to the best fertilizer for producing Cucumbers. AUGUST S. SEELEY.
Norfolk, Va.

The proper way to make the cucumber crop a profitable one is to have frames and raise the plants under glass and have them in small 4-inch pots filled with good, rich soil made of rotted sod and woods mould, and then to set out these plants in the hills as soon as the weather will permit, by which time they should be large enough to commence running and blooming at once. In this way the crop can be gotten on the Northern markets at a time when it will sell well. The land for the crop should be finely prepared and be laid off in 5 feet checks and at the crossing of the checks the soil should be thrown out sufficient to allow for the dropping of a couple of shovelfuls of good compost made up of well rotted manure and woods mould or rich earth with which should be mixed a good handful of fertilizer made up of 300 pounds of nitrate of soda, 750 pounds cotton seed meal, 700 pounds of acid phosphate, and 250 pounds muriate of potash, to make a ton.—Ed.

MILLET AS A FEED.

Would it be as profitable to feed sheep ground millet at \$1.00 per bushel as oats at 40 cents?

Please give analysis of millet, oats and corn?

(Dr.) J. T. KELLEY.

Shenandoah, Va.

The food constituents in millet, oats and corn (the seed) are very much the same as the following analysis shows:

	Protein.	Carbohydrates.	Fat
Millet	11.8	57.4	4.0
Oats	11.8	59.7	5.0
Corn	10.3	70.0	5.0

Millet however, has not been found to be a satisfactory feed for many animals, as it contains a certain principle which acts strongly on the kidneys. For this reason it can never be fed more than sparingly to horses. We have no record of the effects of millet on sheep in this respect, but would advise careful experimentation with it before attempting to use it as a constant feed.—Ed.

IMPROVING LAND.

I have about three acres of sandy and hilly land, pine wood cleared and stumps removed six years ago. Whenever cultivated, this land washes badly by the rains and crops are poor. In your next number advise what I can sow on it to form a turf and thus prevent washing and make some grazing.

NORTHUMBERLAND SUBSCRIBER.

Northumberland Co., Va.

This land wants deep plowing and subsoiling and then to have plenty of vegetable matter turned into it to fill it with humus when it will stop washing. Sow cowpeas in May and turn down in August and then sow crimson

clover and a mixture of wheat, oats and rye, and this will make a winter cover for the land, to be turned down in April or May. Sow one bushel of cowpeas to the acre and 10 pounds of crimson clover and three pecks of wheat, oats and rye, mixed in equal parts, per acre. Follow this course with land two years, and then you may bring it into a course of rotation of crops—say, corn, wheat or oats—and then grass and clover. If the land is poor give a dressing of 300 or 400 pounds of acid phosphate before sowing the peas, and then after plowing these down, apply 1 ton of lime per acre before sowing the crimson clover.—Ed.

DISEASED SHEEP.

I see that my sheep are not doing well. I find small knots over the intestines which look to me like tubercles, or it may be what is called "knotty gut." I wish to know what the disease is and its treatment, if there is any remedy for it. By complying with the above request, you will much oblige a subscriber of your excellent paper.

WM. H. ABBITT.

Campbell Co., Va.

Your sheep are suffering from the "knotty gut disease" caused by a parasite with the long, jaw-breaking name of *Esophogostoma Columbianum*. You will find an article in this issue dealing with the subject. It is practically an incurable disease.—Ed.

MOON FARMING.

We have several questions asking as to planting crops and applying manure and fertilizers at certain phases of the moon. In reply to these we would say that we take no stock in moon farming. If farmers will prepare their land well, manure it well and then plant their crops or sow the seed when the land is in good order and afterwards give them proper cultivation and attention, they will make good yields, assuming the season a normal one, whatever the phase of the moon when the work was done. Take no notice of the moon. It will neither help you nor harm you.—Ed.

FEEDING ANIMALS.

Will you kindly give me the analysis of food elements in the following stock foods: shelled corn, wheat bran, cotton seed meal, oats, corn fodder, peavine hay, wheat hay, oat straw?

I am a farmer boy wanting to learn. I want to know how to mix balanced rations for horses and mules at hard work at the lowest cost.

O. C. PERDUE.

It would take more space than we can spare at this time to give you the information you ask. Send to the Department of Agriculture, Washington, D. C., and ask them to send you Farmer's Bulletin No. 22. This will give you the information you seek.—Ed.

LIMING LAND—PEAS AND CRIMSON CLOVER.

1. I have a piece of upland, good, clay subsoil, with timothy sod, which I have covered with manure, and expect

to plant in corn in the spring. The land is in good condition, orders up well, and produces fairly good crops, but I have reason to believe that it is sour from the fact that I have difficulty in getting good stands of clover. Would an application of five or six hundred pounds of lime to the acre benefit this land and be a sufficient quantity to aid in getting clover hereafter? Would apply the lime, just before planting corn, with wheat drill, using fertilizer attachment. Expect to sow this piece to wheat in the fall.

2. Also have a piece of land adjoining the above which has such a poor stand of grass, clover and timothy that I am plowing it up and wish to plant part in corn and sow peas at last working, and the balance in peas and millet sorghum, just enough to make the peas stand up well. These I would mow for hay, leaving as much stubble as possible to be turned under for corn another year. The peas sown in corn I would leave on the ground to be turned under. How many peas should be sown per acre in each instance, sown broadcast. Would peas be better than crimson clover to sow in corn at last working? The land is rather thin clay upland. SUBSCRIBER.

Augusta Co., Va.

1. An application of lime when preparing the land for corn would help the corn crop and no doubt enable you to secure a stand of clover, but it should be in greater quantity than named. Use at least 1,000 to 1,500 pounds to the acre, and, better still, one ton. Apply broadcast and not through drill.

2. Sow half a bushel of peas per acre with the sorghum or millet. We would prefer to sow crimson clover in the corn, as it gives a better winter cover for the land and makes a good fallow to turn under in spring. The peas are good to turn down in the fall, but a winter cover is very essential to improvement of land.—Ed.

NITRATE OF SODA FOR TOBACCO PLANTS.

Please tell me how to apply nitrate of soda on tobacco plant bed; how much to apply per hundred yards, and at what time should it be applied? Water is convenient and I do not mind giving it a heavy sprinkling if it is any advantage.

R. L. W.

Hanover Co., Va.

The nitrate may be applied either sown broadcast or dissolved in water. Apply just before the plants begin to appear, and again after they have started growing freely. Apply just after or during a gentle rain when it will be at once dissolved, if sown broadcast. If applied in water put on in the evening after the sun has gone down. Apply at the rate of 5 pounds to the hundred yards of bed.—Ed.

ALFALFA—GRASS.

1. I have a piece of ground I sowed in alfalfa last September. It came up nicely in some places and in other places it is very thin. How can I get it even all over the field?

2. I have a piece of new ground that I have cleared off this winter, it is clay and slate underneath of part of it, though would come in grass, I think. How would it do to coult it up this spring and sow in buck wheat and grass? What kind of grass seed would be best to sow to get a sod on it?

W. G. CLARK.

Bath Co., Va.

1. It is very uncertain work to endeavor to patch up a

stand of alfalfa. Usually, the best course is to plow up the whole field and begin afresh. Sometimes, a top dressing of fine, well rotted manure will start the thin places to growing and spreading, or a top dressing of 100 pounds of nitrate of soda per acre may be used. If, however, the plants are not there, these suggestions will be of no use. If the bare places are only small, break them well with a hoe, manure and sow more seed on them. A top dressing of soil from an old alfalfa field—say, 200 pounds to the acre—will help to invigorate the stand. Run the mower over the field as soon as the alfalfa is 4 or 5 inches high and leave the cuttings for a mulch. Repeat this two or three times during the summer.

2. If you think the land is rich enough to produce grass, sow three bushels per acre of mixed orchard, tall meadow and herds grass, after the land has been deeply broken and finely worked. Do not sow any grain with the grass. —Ed.

BERMUDA GRASS.

I would like some information relating to Bermuda grass. What are its merits and demerits? Is it objectionable on account of its roots? Are they anything like the roots of "Quack Grass" of the North? When is the proper time to seed? Amount of seed per acre? At what price and where may it be obtained? L. S. CRITTENDEN.

In this and the March issue, you will find articles on this subject, giving the information you desire.—Ed.

CREAM MARKET—COWPEA HAY JOHNSON GRASS.

1. Is there a very big demand for cream in Richmond, and do you think a person would have any trouble in finding good customers for it?

2. Who would he be likely to get for customers, hotels or confectioners?

3. About what is the price paid for cream—say, cream that will test out 25 per cent. butter fat?

4. How many tons of black eye pea vine hay can be cut from an acre?

5. Does Johnson grass make a good pasture, and is it early?

JOHN D. GITCHELL.

Albemarle Co., Va.

1. We know a considerable number of dairymen who send cream to Richmond, but whether there is a demand for more than is being supplied we do not know. We believe that in all the cities of the South there can be found good markets for cream, and the demand is growing larger every day.

2. The hotels, milk dealers and confectioners all buy cream in this city.

3. We are unable to give the price paid for cream, as it varies according to the quality guaranteed and supplied. We believe from 75 cents to \$1.00, according to the per cent. of fat, is about the average paid in this city. The retail price for only a thin cream here is usual about \$1.00 per quart.

4. From 1 to 1½ tons. Black peas will make 2 to 3 tons.

5. Yes; but it is not very early. It does not begin to grow freely until the ground is warm.—Ed.

FERTILIZER FOR ORCHARD.

I have for several years, and with good results, I think, been in early spring, putting acid phosphate (S. C.) and muriate of potash (in proportions, 1 pt. potash and 3 pts acid phosphate) on my orchard, sprinkling the same broadcast under my apple trees as far out as the branches extend. Would it be better to put nitrate of soda in place of muriate potash, and in same proportion with acid phosphate, or would it be better to substitute pure bone or common bone with acid phosphate, 1 pt. bone to 2 pts. acid phosphate? Or, if you know anything better for fertilizer, please state it—that is, for surface treatment—would it do to put cotton seed meal on surface?

C. W. HOLLISS, Subscriber.

Prince William County.

We do not think you can do better for your trees than you are doing, except that in August, we would sow Crimson clover in the orchard to make a winter cover for the ground, and this crop to be plowed down in the spring. This would give you nitrogen without buying it. If the trees do not make sufficient wood, sow a crop of cowpeas in May, after applying the phosphate and potash. This crop to be plowed down in the early fall and to be followed by Crimson clover. These two nitrogen gathering crops should give all the nitrogen the trees need, and the potash and phosphate will harden and ripen the wood and give color and flavor to the fruit.—Ed.

EARLY SWEET POTATO

What is the best variety to raise that hasn't a pink skin? Do they keep as well in winter as the late varieties?

Halifax County, Va.

A.

The yellow Nansemond is a good variety, as is also the Caroline (extra early), with a gold colored skin. Few of the early potatoes keep as well as the late ones.—Ed.

BEET CRATES—CANADA PEAS—SHOCKING CORN.

1. Give plans for making beet crates; thickness of lumber used, etc.

2. How can I tell when Canada peas and oats should be cut for hay? At your suggestion in Planter, I will sow some this year. I tried some cowpea hay last year, and, by following the instructions given in the Southern Planter, had no difficulty in curing it.

3. Give details of staking or shocking corn in the field. How long can it stay in the shock without the stalk and fodder being injured? I tried a few shocks last year, as advocated by the Planter and think I will like it all right, and abandon the old method of pulling the fodder off the stalk. I took another man to help me and we cut the corn down with a corn knife and let it wilt, then shocked. The way I put up a shock was slow work. Tell me how experienced men shock it, how they begin the shock and complete it.

H. S. SWAIN.

Trotter County, Va.

1. We are not familiar with the kind of crates used for shipping beets, as in this section they are usually sold on the market tied in bunches of 6 to 8. Send to the South side Mnf. Co., Petersburg, whose advertisement you will find in this issue. They make all kinds of crates, and by buying a few beet crates you will see of what they are made and whether it will pay you to make them yourself.

2. Cut when the peas are just beginning to harden. Are

glad to hear of your success in curing cowpea hay. With a little experience in handling the hay, there is no difficulty in curing successfully by following the instructions we have given.

3. The best way to shock corn is to cut it and set up at once without laying it down to wilt. The newly cut stalks will stand up much better than after they have been wilted, and the corn will cure out just as successfully. Some tie three or four adjoining stalks together to start the shock, but we never found it necessary to do this. Others use a shocking horse made by taking a pole 6 or 8 feet long and putting two legs on to it 3 feet long at one end, and then bore a hole through the pole across the line of the legs about three feet back of the legs. Have a stick 4 feet long small enough to pass easily through this hole. Set the horse where the shock is to stand and put the stick through the hole and then begin to shock the corn by putting the stalks first in one angle—made by the crossing of the pole and stick—and then in the other. When the shock is sufficiently large, draw out the stick and take the horse out of the shock from the leg side. This will leave the shock standing securely. With this horse, one man can shock corn as well as two. The shocks should be left standing until the corn and fodder is thoroughly cured.—Ed.

MILLET.

I believe it a general impression that millet, grown for either seed or hay, is hard on land—some say a "land killer." I would like to hear the merits of the crop, in this respect, discussed through your valuable paper. The best land in this section will produce from two to three tons of millet hay, or yield from twenty-five to forty bushels of seed per acre. The raising of seed for market is profitable, and seems to be an increasing business. But some farmers have dropped it because of the idea that it impoverishes the soil. One reason for this belief is that wheat usually fails after a good crop of millet. Millet, cut for seed, is harvested in September. The ground is usually poorly harrowed and wheat seeded late, and frequently less than half a crop harvested. I have, however, seen timothy and clover seeded with the wheat make a heavy yield the following harvest. Would you attribute this failure to poor preparation and late seeding, or do millet and wheat draw the same elements from the soil?

What fertilizer would you advise for millet, and how does millet compare with corn and wheat in exhausting the land?

I intended sowing peas on land in millet last summer, but this sacrifices the winter crop. If we could discover some method of fertilizing that would allow us to raise wheat successfully after millet, thus allowing millet to take the place of corn in the rotation of one crop of corn, two of wheat, then grass, it would be of benefit.

Augusta Co. Va.

W. S. MOFFETT.

Where millet is grown for a hay crop, if cut before the seed forms, it is no more exhaustive of land fertility than other grasses, but where grown for seed—if the crop is a heavy one—there is a heavy draft on the soil, as the seed heads are large and require large supplies of phosphoric acid and potash in the soil to enable the plant to make and mature the seed. Where wheat follows millet, it also draws heavily on these two elements of mineral plant food, and hence is not likely to be a heavy crop unless both these elements are liberally supplied when seeded. Probably in your section, if lime was applied at the rate of 1 ton to the acre, the need for potash in the ferti-

lizer would be obviated, as you have plenty of potash in your soil which only requires to be made available by the use of lime, but the phosphoric acid must be supplied in the form of bone or bone and acid phosphate. The land should also receive much better preparation than merely harrowing. Both the crops are largely surface-rooting plants and to require them both to find the necessary plant food in the same 3 or 4 inches of surface soil is to expect more than they can do. Plow and prepare the land well and fertilize as we suggest and we think you will find the rotation suggested can be adopted, though it is not and ideal one for the land.—Ed.

ROPY OR SLIMY MILK.

My cow's milk at times is slimy, and the cream is hard to churn and crumbles. The cow goes in the corn field and fed wheat middlings, stock pea hay, rutabagas and, once in a while, on corn. Please tell me what makes her milk slimy.

W. B. K.

Norfolk Co., Va.

The slimy milk is caused by bacteria. Sometimes these bacteria get into the milk from the feed, at other times the germs are gathered on the udder when the cattle are in the pasture, and drop from there into the milk cans. Sometimes, and probably most generally, the bacteria are introduced by dirty milk cans and other vessels into which the milk is put. The water used in washing the cans may be the means of introducing the bacteria. Perfect cleanliness in the cow house and cleansing of the udder carefully before beginning to milk should be practiced. All milk utensils should be thoroughly scalded and aired every day. The pasture in which the cows run should be changed so that it may be seen whether the cows get the bacteria there. In most of the cases of this kind investigated, the trouble has been located in unclean cans and other dairy vessels. The source from whence the bacteria comes must be located before the trouble can be avoided, and then its entry into the milk be prevented.—Ed.

TEOCINTE.

I would like to hear from you on Trocenite. I would like to know what you think of it for feeding cows and horses, whether or not it will cure as well as the regular fodder; how much, and what kind of a fertilizer to use in planting it, and your opinion generally. I am feeding five cows and three horses and am thinking of planting an acre of it to use green as I need it, and the balance I would like to cure.

ALPHONSUS COBB.

Durham Co., N. C.

Teocinte makes a valuable forage crop in the Gulf States and will succeed in a favorable season as far as the South side of Virginia. We have a number of subscribers who grow it and speak highly of it as green feed, but it requires good land to make a heavy yield. On good land, it will yield three or four cuttings, as it throws up a large number of stalks from the stools each time it is cut. Plant like corn, giving at least 3 feet space between the rows and 3 feet between the hills in the rows. Any of the crop not used for green feed can be cured by being cut and set in shocks like corn, but the shocks should not be large

as the leaf and stalks are very succulent and take a good deal of curing to keep well. 3 or 4 pounds of seed will plant an acre.—Ed.

GRASS GROWING.

1. What is the best grass or grass mixture to sow on steep north hillsides for permanent pasture?
2. Can I get Bermuda, or any grass, started on fresh land that has never been cultivated, without cultivating the land in some crop first?
3. What time of year is best to sow Bermuda, and would you sow the seed or plant the joints?
4. What is the best grass to sow for making hay on land that is inclined to be a little too wet for corn?

M. R. RUDISILL.

1. If your elevation is not too great Bermuda will, in your section, be the best grass you can plant on those steep hillsides. It will hold them together.
2. Grass very rarely succeeds on land that has not been cultivated in other crops for a year or two, and thus been gotten into a good physical and mechanical condition. Sometimes a rich piece of woodland will, after the timber is cleared off, run into a good sod without more than a light working of the surface soil, but this is not often true of other land.
3. Bermuda may be either sown or planted in the spring. We advise the planting of the roots, as the seed is not at all reliable.
4. On wet land, Herds grass makes the best hay crop.—Ed.

RATS AND MOLES.

Ground rats kill our garden vegetables by running under the roots, and moles are badly injuring our lawn. Can you suggest a way to destroy these pests?

Culpeper Co., Va.

A SUBSCRIBER.

We have never before heard of rats injuring vegetables when growing. We think its more probable the moles that are guilty of all the trouble. These may be caught in traps which may be bought at the hardware stores and be set in the runways of the moles. We have often killed them in this way.—Ed.

TOBACCO GROWING.

I broke up an old broom-sedge field in the fall of 1904. The following spring planted in corn and at the last working of corn sowed crimson clover seed, and have a fine stand. I now wish to put the land into sweet Orinoco tobacco. As this will be my first attempt to grow tobacco, would like to have some of your valuable information as to what fertilizer to use for size, weight and finish. The land is level chocolate loam with clay subsoil. Shall plow the clover down and then prepare the land with plow and disc cultivator.

A BEGINNER.

Read our advice on preparing and fertilizing the land for the tobacco crop in our article on Work for the Month, and if you follow this and use the fertilizer recommended, we think you will make a crop of which you will not be ashamed if the season is a favorable one.—Ed.

(Balance of Inquirer's Column in advertising pages.)

Miscellaneous.

THE VIRGINIA LEGISLATURE AND THE AGRICULTURAL COLLEGE AND EXPERIMENT STATION, BLACKSBURG, VA.

As the result of the efforts made to secure the needed appropriation for the completion and equipment of the Agricultural Hall and for the extension of the work of the Experiment Station, the Legislature has appropriated \$60,000 for the Agricultural Hall completion and equipment and \$5,000 per year for the Experiment station work. These two sums, whilst they fall short somewhat of what was asked, viz., \$75,000 and \$10,000, are yet a fair evidence that the members of the Legislature are in sympathy with the work done at Blacksburg, and desirous of helping it forward, and that the farmers of the State can fairly count upon the votes of the members for any institution or work upon which they set their minds, if only sufficient care is taken to make the facts and object clear to the Legislature. We believe that every dollar asked for would have been voted freely by the Legislature had the amounts not been cut down by the House Finance Committee, upon which were two or three members who are not warmly in sympathy with the work of the College and Station. This Committee kept the Experiment Station bill so long that it did not reach the House until it was too late to risk the effort to amend it by substituting \$10,000 for \$5,000. If time had permitted we have no doubt that this amendment could have been carried. However, we rejoice to know that at last the State has recognized the obligation to help the Experiment Station, which it never previously did. The Station is now doing such excellent work for the farmers, and is prepared to do so much more if it had only the money, that it ought not to be put in the position of a suppliant, but should have only to point out its needs to have them met. It requires yet to be made clear to every member of the Legislature that only in so far as it helps the Station can work be done away from the Station, and this kind of work is absolutely essential in Virginia, as the location of the Station on the mountains of South West Virginia absolutely prevents it from doing experimental work there which would help the tobacco and truck growers of the State. The money appropriated by the National Legislature cannot be used for this purpose. It must be expended at the Station. It is the intention of Professor Soule to use

this appropriation by the Virginia Legislature largely in work for the tobacco and truck growers, and we doubt not that the result of this will be that there will be no difficulty in getting what money is needed to continue this work from another Legislature. We desire, on behalf of the farmers of the State and ourselves, to tender our thanks to Governor Swanson for the warm interest which he took in the matter of securing the appropriation for the Hall and Station. He gave us readily and cheerfully every help in his power, and this is also true of the great majority of the members of the Legislature, to whom, also, we tender thanks.

CONGRESSIONAL FREE SEED DISTRIBUTION.

We are delighted at last to know that there is some chance of this abominable old fraud being stopped. We, along with all the leading Agricultural journals, have attacked it year after year, and now the great Grange Association has joined with the press in condemnation of it. As a result of this persistent work the Agricultural Committee of the House has, by a small majority, ordered that it be no longer provided for in the appropriation for the Department. We regret to see that a number of Southern representatives on the Committee still desire to see the distribution continued. We are at a loss to understand how they can reconcile themselves to such a waste of money, when it is urgently needed for other purposes of infinitely more importance and help to the farmers. If, instead of being wasted, in giving away packages of common seeds, not worth more than a few cents to any one, and which can be bought anywhere for a few cents, the money was applied in aid of establishing a parcel post, everybody would be benefitted, and the monopoly of the Express companies, with their exorbitant charges, be destroyed. We entirely concur in the following remarks of the American Agriculturist: "There are gleams of returning sense in Congress. The House Committee on Agriculture by a vote of 8 to 7 has decided not to recommend any appropriation for free seeds. This action does not kill the hoary old fraud, however. An attempt will be made to add the item to the bill when it comes before the House. *Write your Congressman, without fail, not to vote a cent for the free seed humbug.* No farmer wants it, the Agricultural press is a unit

against it, and the only friends the old swindle has are those ignorant Congressmen who delude themselves with thinking that they can buy votes with a few packages of bad seeds." How any Congressman can reconcile it to his conscience to use the tax-payers money in buying and distributing seeds to bribe his constituents, we are at a loss to understand. If he wants to go into this bribing business, let him do it out of his own pocket and take the legal consequences. He will then, at any rate, be entitled to the credit of the courage of his convictions that this is a proper way to secure votes.

SELECTING SEED CORN.

(Continued from Jany. issue.)

THE SEED PATCH.

Editor Southern Planter:

To perpetuate the desirable qualities in the ears selected, it is necessary to have what is known as a seed patch. For this purpose an acre or two of land should be selected and fertilized and cultivated to the best of the owner's ability. When in as nearly ideal condition as it is possible to get it, the selected mother ears, as noted, should be planted in separated rows, the best and choicest ears being planted nearest the center and the poorest on the outside. This will insure the protection of the plants from cross-pollination by other varieties. The seed patch should be separate and distinct from the corn field, so that the special qualities in the selected ears may be preserved. It should therefore be at least 80 or 100 rods from any other corn. A close study should be made of the individual plants through the season and they should receive the best care and treatment. In the fall the grain from each row should be carefully harvested and the yield per acre estimated. Those rows yielding the largest amount of grain should be saved for seed, and if there are certain individuals in these rows which merit attention, they should be especially selected to furnish seed for the patch next year. The same process of testing the grains should be gone through next season, and the same care taken to keep them in ideal condition. By following up this method of selecting and giving proper attention to the seed patch decided improvement for any purpose in mind can be effected in the course of a few years. The time involved is comparatively little, and the seed patch will yield a profitable crop, which can be sold to friends and neighbors to advantage. The mere fact that some growers are now getting \$5.00 a bushel shows the great possibilities in the work of corn selection. It

further indicates that farmers are beginning to realize that the selection of corn is not all theory, but a matter of the greatest concern and value to the grower. When he further realizes that though he may not become a commercial grower of corn, he can still afford to select and improve strains adapted to local conditions for his own benefit and the benefit of his neighbors, it will mark an epoch in the cultivation of this important cereal in the South.

An aid in the selection of corn will be a careful and systematic study of desirable qualities. In order to do this to the best advantage, a score card becomes a matter of importance to the grower. In a number of agricultural colleges the subject of corn growing has been given special attention, a score card adapted for the work having been developed. That used in the College of Agriculture in this State is as follows:

COLLEGE OF AGRICULTURE

OF THE

VIRGINIA POLYTECHNIC INSTITUTE.

Student's Score Card.

Scale of Points for Corn.

Name of variety..... Source of sample.....
Number of sample..... Character of soil.....

Standard of Variety.

Length..... Per cent. of grain to cob.....
Circumference..... Number of rows per ear.....

Points	Perfect Score.	First Score.	Second Score.	Connected Score.
Uniformity of exhibit.....	10			
Shape of ears.....	5			
Color of ears.....	10			
Market condition.....	5			
Tip of ears.....	10			
Butts of ears.....	5			
Uniformity of kernels.....	5			
Shape of kernels.....	5			
Length of ear.....	10			
Circumference of ear.....	5			
Space between rows.....	10			
Per cent. of corn.....	20			
Total.....	100			

Remarks..... Name..... Date.....

One who will take this card and study the varieties grown in the neighborhood will obtain an insight into the subject of corn judging, that can but be beneficial. Uniformity applies to the trueness in type in the various ears which make up the sample. The judgment is based on 10 ears. The shape of the ear refers to its relation to the variety of type. The ideal ear should be cylindrical and of equal circumference from butt to tip, not tapering. The color of the grain should be solid and true to the variety; that is, the cob of yellow corn must be red. A red cob in white corn or a white cob in yellow corn is not allowable, and a mixture of color in either grain or

cob indicates impurity, unless in case of a few special varieties. Market conditions refer to the ripeness and soundness of the grain, on which, of course, its value depends. Condition of seed signifies its capacity for reproduction. The tips of the ear should not be tapering, but rather flattened and blunt, though regular in form, and well filled out with kernels of uniform size and shape. The butt should be covered close to the shank. Open and large butts, or flattened and loose kernels are objectionable. Uniformity of kernels refers to the regularity in shape, size, color and trueness to the type of the individual ear. The kernels should touch from tip to butt. Large strong germs are desirable, as already indicated. The shape of the kernels varies with the variety; it should be wedge shaped as a rule, but not too long, and the width and size of the kernels should be as nearly uniform as possible from the tip to the butt. A triangular shaped kernel permits of closer packing of the grain on the cob. The length of the ear varies with the type, but the ears in a given sample should of course be uniform. The ear should be about one and one-third to one and one-half times its circumference in length, when the measurement is taken from the extreme tip to the center of the butt. The space between the rows refers to the space between the kernels. The difference in the width between the kernels is determined by the manner and degree in which the tops of the kernels are rounded off. This, of course, has no reference to shrinkage and immature kernels. The space between the rows should not be over one-sixteenth of an inch. The percentage of grain to the cob is determined by shelling five of the ears in the sample, and weighing the corn and cobs from each separately. The weight of the corn, divided by the weight of the ears gives the percentage.

ANDREW M. SOULE, Dean and Director.

Exp. Station, Blacksburg, Va.

PROFIT IN POULTRY.

Editor Southern Planter:

Along with the other chicken raisers, I'd like to tell you what my flock of 12 hens did in 1905. Six were white Wyandottes (the best breed on earth), and six were silver laced Wyandottes. One hen I set on 12 turkey eggs and hatched and raised ten turkeys, which I sold for \$20.55. From the other eleven hens I sold \$12.00 worth of chickens, and ate \$10.00 worth during the summer. I kept and turned into my yard 13 beautiful pullets. Can any one beat this record? This year I shall sell all my cross-bred fowls and keep only the "white." They

are "a thing of beauty and a joy forever." I wish every one could know how valuable they are for general purpose fowls.

....

M. K. LAWRENCE.

Goosland Co., Va.

A ROAD MAKING DEPARTMENT FOR VIRGINIA.

We are glad to be able to state that the Legislature of Virginia has made provision for the creation of a State Highway Board at last. When this Department gets into working order we shall expect to see progress made in the work of making and maintaining a system of good roads throughout the State. Messrs. Lassiter and Withers are entitled to the thanks of the people of the State for having worked out and secured the passage of the bill creating the Central Authority. Virginia is at last falling into line with the progressive States of the country.

OPPORTUNITIES FOR A LARGER LIFE IN AGRICULTURE.

Editor Southern Planter:

Do agricultural pursuits offer any special advantages to young men in the present day and age? That depends entirely on what one's conception of the term agriculture may be. While agriculture is the foundation on which all our industries rest, the term has but a vague significance to most people. Ordinarily, there comes to the mind a picture of isolated farm homes where pleasures are few and work unending. Constant and laborious efforts wring from the soil a scant existence, and the country boy, because of his restricted social advantages, is often looked upon with scorn by those who have a little more of the artificial polish, which constant association with people gives. All the same, he is a diamond in the rough, and it is from these plain rural homes where living is substantial, ideals high, life exacting and habits regular that the fresh material comes each year to vitalize the industrial, political and social life of the nation. Could the boy foresee his destiny and measure the full force of the moral stamina a healthy, vigorous body and boundless energy means in the race for supremacy in life, he would thank God that he was born under the sheltering eaves of a plain farm home where, amid green fields, he breathed in the countless inspirations that living next to nature gives. Better be a plain, farm boy, inured to the hardships of life and acquainted with the necessity of self-sacrifice, which goes with self-control—a priceless virtue, than be born under more favorable circumstances in a home of opulence.

After all, the old farm is not to be despised, for it has given more to the American nation in mental activity and in capacity for guiding and developing its destinies than has come from all other sources combined, and the restricted life of the farm is only seemingly so, for nowhere else are conditions more varied and the demands for the exercise of good judgment and ingenuity in solving the hundred and one problems, which daily confront the farmer, called for. Then, if you and I were more intimately acquainted with the growth and development of this country, and if we appreciated more fully where the sinews of war have come from, it would not be so commonly said that agriculture is not a money-making occupation, or that it does not offer unexampled opportunities for the acquirement of competency. The truth of this statement is exemplified by the following figures taken from the twelfth census. In 1850, there were 1,449,073 farms in the United States; the population of the country at that time was 23,191,876. In 1900, just half a century later, there were 5,739,657 farms, and the population had more than trebled, reaching 76,303,387. In 1850, there were 293,560,614 acres in our farms; in 1900, 841,201,546 acres. In 1850, a large per cent. of the land occupied in 1900 was in virgin prairies, absolutely unproductive except for the wild herds of cattle and buffalo which roamed over it. Millions of people who came to America as immigrants since 1850 have taken up farms from one hundred to several thousand acres in extent, obtained a splendid competency therefrom, educated their children in modern schools and colleges, and have money out at interest. So marvelous has been this development that the capital invested in farms in 1899 amounted to \$20,514,001,000, while that invested in manufacturing amounted to \$9,874,087,000, or less than half as much as that invested in farming. Yet American industrial supremacy is pointed to with pride by the nation, while the fundamental basis of our industrial wealth, resting as it does on the prosperity of the farmer and the result of his effort, has been entirely lost sight of, though more than twice as much money is invested in farming as in all our gigantic trusts, corporations and manufacturing concerns put together.

Young man, is there not a chance for you in agriculture, a business capitalized at more than \$20,000,000,000; is there not a chance for you to grow and develop along any line in which your ambition may lead you, whether it be discovery and application of scientific truths that will revolutionize farming, the teaching and inspiration of those that till the soil, or the acquirement of wealth? Surely there is.

As the young man stands on the threshold of life

and looks out upon the world, a shrinking, cringing feeling often comes over him; the battle has yet to be fought and the spurs won. What is the outcome to be? A hundred possibilities present themselves, and which to choose, is the question that agitates the mind without ceasing. Destiny is largely what you make it. It rests entirely with you as to whether success or failure shall attend your efforts. Advantages may have been few and natural gifts lacking, but there is a place for you in the world's economy if you only choose wisely and well, and then by beginning at the foot of the ladder and marching upward with steady, determined effort and unswerving devotion to duty, you will find your place close to the top round when life's struggle is over. It makes little difference what vocation you choose, so you choose that which is honorable, and then do your whole duty to yourself and your country.

In choosing a profession one should be actuated by some or all of the following motives. First, to accomplish something of real value for the benefit of humanity. The only enduring monuments that men build to themselves are based on achievements which are of continuous value to posterity. It is infinitely better to do something that will add to the comfort and to the progress of the human race, than to gather together money, which must miserably perish on the close of life's little drama. Choose that profession by which an honorable living may be made for yourself and your family. Choose that profession which, considering your natural gifts, offers the best advantages for you to acquire a competency for old age. Choose that profession which will be least wearying and exacting to the mind, for the muscular activities of the body can be preserved and will endure much more in the way of physical stress than the mind. Finally, you can make no better choice, if you feel called in that direction, than to become a teacher, a missionary as it were, a carrier of glad tidings to the thousands of toilers who see nothing in the work they are performing, but to grope blindly forward from day to day without hope of reward in the future, simply because their lives have not been led out to grasp the great essential truths about them, and change them from mere pieces of human mechanism into thinking and intelligent human beings. Measured by these conditions agriculture offers unexampled opportunities to young men. The field of activities embraced within its scope continually widens to the studios vision, and there is a chance for you no matter how humble your natural gifts, to be of real service to thousands of your fellow men, and at the same time get out of life all the good things it contains.

Blacksburg, Va.

A. M. SOULE.

(To be continued in May issue.)

THE

Southern Planter

PUBLISHED BY

THE SOUTHERN PLANTER PUBLISHING CO'Y,

RICHMOND, VA.

ISSUED ON 1ST OF EACH MONTH.

J. F. JACKSON,

Editor and General Manager.

B. MORGAN SHEPHERD,
Business Manager.

B. W. RHOADS,

Western Representative

1714 Tribune Bldg., Chicago, Ill.

ADVERTISING RATES

will be furnished on application.

THE SOUTHERN PLANTER is mailed to subscribers in the United States and Canada at 50c per annum; all foreign countries and the city of Richmond, 75c.

REMITTANCES should be made direct to the office, either by Registered Letter or Money Order, which will be at our risk. When made otherwise we cannot be responsible.

SUBSCRIBERS failing to receive their paper promptly and regularly, will confer a favor by reporting the fact at once.

WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. Criticisms of Articles, Suggestions, How to Improve THE SOUTHERN PLANTER, Descriptions of New Grains, Roots, or Vegetables not generally known, Particulars of Experiments tried, or Improved Methods of Cultivation are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of post.

NO ANONYMOUS communications or enquiries will receive attention.

Address THE SOUTHERN PLANTER,
RICHMOND, VA.

ENTERED AT THE POST-OFFICE AT RICHMOND, VA., AS SECOND-CLASS MATTER.

A WANT AD. COLUMN.

Yielding to numerous requests, we have decided to establish a "want ad." column, where farmers can, at a small cost, offer for sale or exchange, any surplus articles they may wish to dispose of. A rate of 2 cents per word, cash with the order, will be the terms invariably insisted upon; 25 cents minimum charge; initials and figures count as one word. This column will always follow the single column ads. Send in your want ads.

PUBLISHER'S NOTES.**To Advertisers.**

Be sure to send in your copy or instructions on or before the 25th of the month for the following month's issue. This is imperative.

EVERYTHING TO ITS USE.

No man in his senses would use a four-horse harrow to smooth up a paucy bed. This would not be much worse, however, than using laundry or toilet soaps for shaving. Common soap, like the harrow, is intended for coarse work. It will yank up the dirt in fine style, but if used for shaving, it will burn and irritate the face, and make the operation of shaving a horror. You need a special soap for shaving—one that will soften the beard and leave the face cool and smooth—such a soap as the famous Williams' Shaving Soap, made by the J. B. Williams Co., Glastonbury, Conn., who will send you a free trial sample if you will write them. Their generous offer appears in another column.

3704 South J. Street, Tacoma, Wash.
February 10, 1906.

Dr. S. A. Tuttle:

Please send me a copy of your hundred page Veterinary Experience. I have used your remedy in curing my horse of a sore neck of six months' standing. Less than one bottle cured him completely.

Yours truly,
STEPHEN JOHNSON.

Montevideo, Minn., Feb. 2, 1906.

I expect to visit your State in the not far distant future with a view of purchasing land and becoming a resident, and if the farming population is one-half as progressive as your publication I shall be more than satisfied.

C. E. MILLS.

Prince William County, Va.,

Dec. 26, 1905.

I value the Southern Planter very highly.

C. W. HOLLIS.

Symth County, Va., Jan. 8, 1906.

I think the Southern Planter is the best magazine for the price I have ever seen and I cannot afford to be without it.

E. B. ECHOLS.

**Wood's
Evergreen
Lawn Grass.**

The best of Lawn Grasses for the South; specially prepared to withstand our summers and to give a nice green sward the year round.

Special Lawn Circular telling how to prepare and care for lawns, mailed free on request.

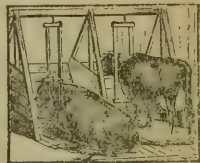
**Plant Wood's
Garden Seeds**

for superior Vegetables
and Flowers.

Our Descriptive Catalogue tells you how and when to plant for best success. Mailed free. Write for it.

T. W. Wood & Sons, Seedsmen,
RICHMOND, - VA.

If you want the sweetest and best Water Melons and Cantaloupes grown, plant Wood's Southern-grown seed. Our Descriptive Catalogue tells all about the best kinds to plant.



WARNER chain hanging stanchions save cost in feed in one winter, says H. A. Moyer, Syracuse, N. Y. I think them perfect, writes I. B. Calvin, Kewanna, Ind., vice-president state dairy association. Send for booklet containing further information to WALLACE B. CRUMB, South St., Forestville, Ct.

PORTABLE ENGINES

For threshing, sawing, grinding, running rock crushers and general farm use, Farquhar Engines are built for good work. In 1905, the most durable engines made. This is the fifth year of our business, each year having brought new improvements which have led to the

**Farquhar
Engines
and
Machines**

famous for their smooth simplicity and efficiency. Our engines are made in detail all our line, Saws, Pumps, Saw Mills & Threshers. We will send free upon request. A. B. FARQUHAR Co., Ltd., York, Pa.

BANK OF RICHMOND,

Main and Tenth Streets.

CAPITAL AND PROFITS, - - - \$1,134,938.14

Special attention paid to out-of-town accounts. Correspondence invited.

Three per cent. interest allowed in Savings Department.

Compounded semi-annually.

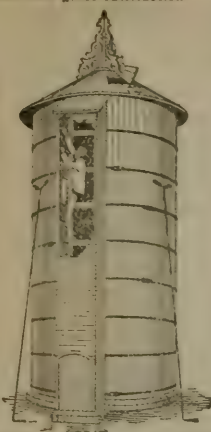
"THE ONLY WAY"

The only way to make dairying a success and pleasure is to use a

LANSING TUBULAR SILO

the kind that gives satisfaction.

With Improved Continuous (Air Tight) door way, guaranteed to preserve its contents.



Attractive price to carry buyers before the rush. Made of White Pine, Tamarack and Western Fir.

QUAKER CITY W. M. & PUMP CO.

144 N. 7th. Street, Philadelphia, Pa.

Write for catalogue and prices.

Economy Silo

No other silo is so easy to put up or keep in shape in such perfect condition. Absolutely airtight and over, but doors are easily removed in less than a minute without hammer or wrench.

Do ways are continuous from top to bottom, give easy access to the ensilage, and the hoops form a perfect, permanent ladder.

Unique construction, made from the best materials and fully guaranteed.

Write or free illustrated catalogue

G with experience of users. Economy Silo & Tank Co., Fredericks, Md.

SILOS

The Philadelphia, the Best on Earth

Has the Longest Test and most in use. Continuous Opening from Top to Bottom.

The Only Opening Roof made.

TANKS and STRUCTURES.

Ask for Price and Catalog.

E. F. SCHLICHTER,

1910 Market Street,

Phila., Penna.



PATENT YOUR IDEAS

\$100,000 offered for one invention; \$5,500 for another.

Book "How to Obtain a Patent" and "What to Invent" sent free. Send rough sketch for free report as to patentability. We advertise your patent for sale at our expense.

Chandler & Chandler, Patent Attorneys
965 F. Street, Washington, D. C.

O. K. STOCK FOOD CO.

Prominent among the new successful business enterprises of the past is the O. K. Stock Food Company of Chicago. This firm manufactures the already famous O. K. Stock and Poultry Foods, as well as the well known Poultry Remedies formerly put out by D. J. Lambert, Apponaug, R. I.

The O. K. Stock and Poultry Foods have been constantly on the market the past seven years during which time many stock feeders and poultry raisers have come to regard them as the best adapted to their needs.—Refer to the advertisements.

A PROFITABLE POTATO SPRAYER.

Any of our readers interested in spraying should look up to the advertisements of "The Hurst Combination Potato and Orchard Sprayer" appearing in this paper, which shows in operation the only machine made that is adapted to all kinds of spraying.

This is one the most useful and profitable machines yet invented for the potato, truck or fruit grower, as it serves every purpose for which a sprayer is wanted, which accounts for the enormous sale the company are having on them.

The machine is positively guaranteed by the company, and they send it out on 10 days trial, with privilege of returning it to them if you do not find it satisfactory, and as they represent it.

The company are pioneers in the manufacturing of spraying machinery, having been in the business 12 years, and make all kinds of sprayers.

For any information regarding spraying or sprayers address the H. L. Hurst Mfg. Co., 1525 North St. Canton, O. They are ever ready and willing to answer any question you may want to ask.

ENLARGED GLANDS CURED BY ABSORBINE.

"I have just cured a case of enlarged glands on neck of one of my horses with your Absorbine, after failing with several other remedies. Am very much pleased with the way it works," writes G. W. Maynard, Spencer, Mass., under date of May 15, 1905. Absorbine cures after other treatments fail. \$2.00 per bottle, at your druggists, or will send you a bottle express prepaid upon receipt of price. W. F. YOUNG, P. D. F., 109 Monmouth St., Springfield, Mass.

Syracuse, N. Y., Dec. 30, 1905. Gentlemen:—Please forward to my address a copy of "A Treatise on the Horse," at your earliest convenience. We have used considerable of your Spavin Cure, and consider it one of the best, if not the best liniment on the market. Thanking you in advance for the book, we remain,

Very truly yours,

H. C. FORTON

THE BEST WAGON For Every Variety of Use is the "BROWN" WAGON

AND THESE ARE THE REASONS WHY



The "BROWN" principle increases its strength, durability and neat appearance. The Tongue Chains have Coil Springs in them, making them easy on the horse's neck. Seat Hooks made of leather—can't and out of iron, can't rust. Just Oil-bolled Wheels—never get Tired. Machine Boxed Wheels—must be true. Machine Fit Skins—better than can be done by hand. Heavy Extension Shoe Skin—which fully protects the skin, only on THE "BROWN" WAGONS. Braided Chains to tongue chains—can't whip the skin. It is stamped "BROWN," which is approximately everywhere and authority. All about it—only on THE "BROWN" WAGONS. BROWN MFG. CO., ZANESVILLE, OHIO.

\$35.50
30 Day
Test.

No
Money
in Advance



—THE— "Anderton" Vehicles

Small and direct from factory at lowest factory prices. We are the only factor offering to let you try an Anderton with your money in your pocket.

We are the only factory that gives a Two Years Approval Test. Of the vehicles you have, backed by 25 years' bank credit, set up as guarantee of your money back, if your car does not give you all right. Write for our free literature illustrated catalogue No. 21. It fully explains our offer on high-grade vehicles and guarantees.

THE ANDERTON MFG. CO.,
42 Third Street, Cincinnati, Ohio.

Modern Silage Methods

That is the title of our new 200 page book. It tells you the best way to make silage. You can't know all the modern methods. You can't think of a question that it does not fully answer. How to buy, how to feed, in what kinds of silos. Without time and money to lose, you can find out. With the most modern silage making tables ever printed. About to illustrate to help to make things plain. Even as a best book in the U. S. Agricultural literature. We have always had the book for sale, but for a limited time, to show you how we will send it, absolutely free, to you, if you will send a coupon from this paper, we will send a copy free. Write now.

SILVER MFG. CO.,
Salem, Ohio.



No. 622½. Top Buggy with Large Phaeton Seat and 15 inch cushion tires. Price complete, \$71.00. As good as sells for \$50. more.

33 Years Selling Direct

Our vehicles and harness have been sold direct from our factory to user for a third of a century. We ship for examination and approval and guarantee safe delivery. You are out nothing if not satisfied as to style, quality and price. We are the largest manufacturers in the world selling to the consumer exclusively. We make 200 styles of Vehicles, 65 styles of Harness. Send for large free catalog.

ELKHART CARRIAGE & HARNESS MFG. CO., ELKHART, IND.



No. 4½. Single Curved Breast Collar Harness. Price complete, \$10.75. As good as sells for \$10.00 more.

The Dairy Problem Solved, and Solved Rightly.

Since man first began to milk cows, the problem of how to make the most dollars from them has been up for solving. After centuries of experiment the way has been discovered.



An Easy Running Empire Cream Separator

will get these dollars for the cow-owner, and will get them all. This is no experiment, it is an actual fact proven by years of experience by farmers the country over.

You want to know why; we want to tell you why. Write, and get our free books on dairying. Read these; then investigate the Empire. The result can only be one thing, a complete proof that our statements are true.

Empire Cream Separator Co., Bloomfield, N. J.
Creamery Churn Mfrs., Agents, Louisville, Ky.

CAN'T LOSE THEM.



Being made of aluminum they are the lightest, strongest and brightest ear tags made. Will not tarnish, rust nor corrode. Will not tear out and cannot be rubbed off. Nothing to catch on feed troughs, etc. Easily set in any part of ear. Best and most durable marker made. Free Sample, catalogue and prices mailed on request.

Wilcox & Harvey Mfg. Co., 199 Lake St., Chicago, Ills.

No matter how far an animal may stray there is no question of ownership or danger of loss if marked with our

Stay There Ear Markers.

THE PLANET JR. GARDEN TOOLS.

An advertisement that should attract and does attract the attention of thousands of people every Spring, is that of the excellent garden tools of S. L. Allen & Co., Box 1107-X, Philadelphia. The fame of the "Planet Jr." garden tools is world wide. There does not seem to be anything that will quite take their place. The hand hoes, cultivators, plows, planters, etc., and in some cases all these combined in one single tool, make up a combination that in nice adaptability to all kinds of garden work, is not found in any other make of tools. The line goes beyond this and includes also horse tools of all kinds.

In this connection, we note that there has been a new addition to the Planet Jr. family for 1906. It is numbered 74 and is a two horse pivot wheel cultivator, plow furrower and ridger. This covers the one spot in garden work not already provided for in the long line of Planet Jr., tools, and we are assured that the new machine possesses more really good points than anything of like kind ever invented. If you garden and are not provided you will find the Planet Jrs. to be your kind of tools. It's an old saying that there's a Planet Jr. for every need. You will find just what you want in the 1906 Allen catalogue. Send for it. It will be mailed free. The advertisement of Messrs. Allen & Co., appeared in our last three issues.

The March issue of the Fruit-Grower, published at St. Joseph, Mo., is an exceedingly handsome number. It consists of 64 pages, with handsome cover design, in two colors, and is the regular Gardening Annual of this publication. Prize gardening articles are submitted from various parts of the country, which cover the subject of the management of the home garden is a very effective manner. These articles are well illustrated. Another feature is an illustrated article on the subject of spraying fruit trees, with suggestions for making and applying the spray mixtures needed in the spring. The illustrations show a number of spraying outfits, with mixing tanks, elevated platforms, etc. The paper is a credit to its publishers, and is full of live, fresh matter of value to everyone interested in growing fruit or who desire to make the home garden more of a success.

Haralson County, Ga., Dec. 30, 1905.

I consider the Southern Planter one of the best periodicals in its line I ever saw.

S. ORGAIN.

Northampton Co. Va., Jan. 18, 1906.

The Southern Planter is a welcome visitor to my home and I expect to be a life long subscriber.

J. L. WHITEHEAD.



WHAT DO YOU SAY?

Several hundred thousand farmers say that the best investment they ever made was when they bought an

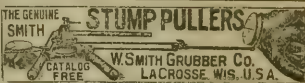
Electric Handy Wagon

Cow wheels, wide tires, easy work, light draft. We'll sell you a set of the best at 18 wheels made for your old wagon. Spoke united with Send for our catalogue and save money. ELECTRIC WHEEL CO., Box 148 - Quincy, Ill.



WE'LL PAY THE FREIGHT.

and we'll deliver it to your door. \$12.50. 18 wheels. \$14.00. Top Buggy \$27.50. Harness \$12.50. Write for Catalogue. Electric Wheel Co., Box 148 - Quincy, Ill.



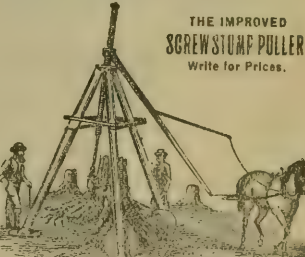
THE GENUINE SMITH STUMP PULLERS. W. SMITH GRUBBER CO. LACROSSE WIS. U.S.A.

HERCULES Stump Puller



Clears an acre of heavy timber land each day. Clears all stumps in a circle of 150 feet without moving or changing machine. Strongest, most rapid working and best made.

HERCULES MFG. CO. 413 17th St., Centerville, Iowa.



THE IMPROVED SCREW STUMP PULLER.

Write for Prices.

Chamberlin Mfg Co, Olean, N. Y., U. S. A.

WANTED SECOND HAND BAGS

ANY KIND—ANY QUANTITY—ANY WHERE. I Pay Freight. Write for Prices. GEO. T. KING, Richmond, Va.

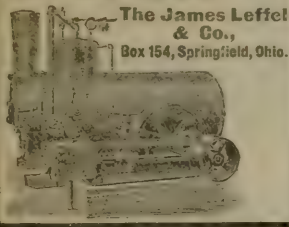
OPIMUM

and Whiskey Habits cured. No pain. Booklet particular sent FREE. B. M. Woolley, M. D., Atlanta, Ga., 103 N. Pryor St.

Leffel Engines

Simple, highly efficient, durable, are specially adapted to farm uses.

Widely known as the most powerful steamers built. We have them Portable, Horizontal, Upright. Machines mounted on trailers or detached. No other kind of power will do so much with so few moving parts. We want to tell you the reasons why. We are the Southern Planter's engine manufacturer and our motto is "Power Economy and Efficiency."



The James Leffel & Co.,
Box 154, Springfield, Ohio.

Increase Quality and Quantity of Your Apple Crop

Write for Increase Fruit in June. Increase your expense for spraying, and do it better than by hand, by using our 1 1/2 and 2 1/2 H. P. Air-Cooled Engines. Write for Catalogue to J. H. Davis & Co., Birmingham, N.Y.



BOILERS-ENGINES

new and second hand, from 2 to 100 H. P. TRACTION ENGINES, \$225.00 each; 3 H. P. Vertical Engine and boiler, \$150.00; 3 H. P. Vertical Boiler and engine, \$60.00; 12 H. P. Vertical Boiler and engine, \$100.00; 22 inch Corn Burner, \$80.00; Corn crushers from \$10.00 to \$25.00; Gas and Gasoline Engines all sizes, new and second hand; boilers from 2 to 100 H. P. New boilers of every description made to order. CASEY MCH. CO., Springfield, Ohio.

Introduce our patented pumps in every section. We have been successful in our special offer. Write for a Catalogue. A Wooden Pump made of iron. Just remove flange in and flange to remove pump. Injector. Stick made of steel, base adjustable. All work previous to flange. Guaranteed.



"Williams" Pump Co., 467 Madison St., Indianapolis, Ind.



LAWN FENCE

Many designs. Cheap as wood. 30 page Catalogue free. Special Prices to Churches and Churches. Address COILED SPRING FENCE CO. Box Q Winchester, Ind.

VENTILATING A HOUSE.

The thought of opening every window in the house, top and bottom, is very shocking, of course. It is intended that it should be. Many people who think that they are really very fond of fresh air need a shock of some kind—a shock that will make them realize what a well-aired house really is.

"I always sleep with my window open," they will tell you. Yes, but how wide do they open it? Perhaps only six inches, and that only at the bottom, and only one window, so that there is no circulation through the room at all.

If that is your way of "having lots of fresh air in the house," then you need a shock of some kind—one that is hard enough to jar the windows wide open. Of course, it is not possible to keep all the windows open all the day and night all the year round, but it is possible to always have a little circulation across every room in the house at all times. And it is possible to have all the windows wide open during a good part of the day and night.

Do not be content with a house that is not actually ill smelling. Have the air in the house just as fresh as the air out doors.

This takes constant thought, but the results pay.—Maxwell's Talisman.

"BACK HIM IN."

Mr. Southern's antiquated steed is, to put it mildly, rather thin. As if to make up for the lack of flesh on the body, however, the animal has a head many sizes too large for it. Of course, people talk about that horse, and Mr. Southern doesn't like it. The other week, for instance, Southern had gone to the expense of a new collar for the brute. Ten minutes after delivery he was back at the saddler's with the collar.

"You blundering idiot!" he blurted out. "You've made it too small! I can't get it over his head!"

"Over his head?" ejaculated the saddler. "Man, it wasn't made to go over his head. Back him into it!"

A SOLITAIRE.

She was a pretty young thing fresh from a fashionable "finishing school." She was bidding the "happiest man on earth" a fond adieu on the stoop of the old country house.

"Now dearest, just before I go," he said, commencing all over again, "what kind of ring shall it be?"

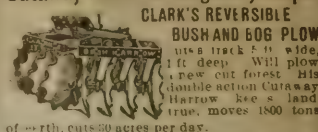
"O Jack," she answered, rapturously, "do get me a solitaire with three diamonds in it."

Dinwiddle County, Va., Jan. 29, 1906.

I am entirely pleased with the Southern Planter and would hardly know how to do without it.

T. F. HAWKS.

Cutaway Tools For Large Hay Crops.



cuts 10 to 12 ft wide. Will plow 1 ft deep. Will plow new cut forest. His double action Cutaway Harrow keeps a land true, mows 1800 tons of 10 ft. cuts 50 acres per day.



NO MORE USE FOR PLOW. The 10 ft. Plow cuts a furrow 5 to 10 in. deep, 14 in wide. All Clark's machines will kill witch grass, wild mustard, narrow leaf hardhack, sunflower, etc. Send for circulars to the CUTAWAY HARROW CO., HIGG NUM CONN.

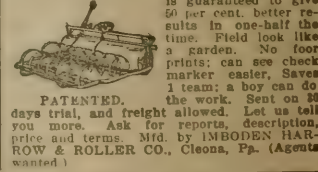


Keystone Weeder and Cultivator
Makes sure crops, increases yield. Preserves moisture at plant roots, 7 1/2 feet wide, narrows to 30 ins. Famous Hallock dirt. Ask for book of many photographed field scenes of weeder at work.



for any cultivator. Runs on the row, where shovels can't go. Weeds, cultivates, uncovers corn, levels. Makes cultivation complete. Send for circular of weeder, cultivators and attachments. FREE.

Keystone Farm Machine Co., 1554 N. Beaver St. York, Pa.



is guaranteed to give 50 per cent. better results in one-half the time. Field look like a garden. No foot prints; can see check marker easier. Seven teams; a boy can do the work. Sent on 30 days trial, and freight allowed. Let us tell you more. Ask for reports, description, price and terms. Mfg. by IMBODEN HARROW & ROLLER CO., Cleons, Pa. (Agents wanted)

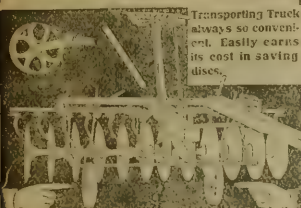
CONCRETE BUILDING BLOCK MACHINE.
Build your new House or Barn of SUCCESSFUL HOLLOW CONCRETE BLOCKS. Cheaper than wood or brick; handsomer and more durable. Made only on Success Block Machine. Also Cement Post machine. Catalog and price list free. HERCULES MFG. CO., Dept. A-102, Oesterville, Iowa.

Stop! Think!!

Don't buy a Disc Harrow without a

TRANSPORTING TRUCK

Price \$4 At Your Dealer's Store.



Transporting Truck always so convenient. Easily carries its cost in saving discs.

Prevents all dulling or breakage in transporting from field to field or upon the road. Saves time and labor of leading upon a wagon. Every farmer should have it because every farmer needs it. Write today for Free Circular, D. T.

FETZER & COMPANY,

Established 1835

Box 15,

Middletown, Ohio.

MASTERS

Rapid Plant Setter

SETS

Tomatoes
Cabbage
Tobacco

Sweet Potatoes, Etc.

Does better work than can be done by hand, and twice as fast.

TWO BARRELS

of water per acre with this setter will produce

SURE WORK

AND

BEST RESULTS

Price, \$3.75 each. Express charges prepaid to your station. Write for particulars, to stimulants, wholesale prices etc.

MASTERS PLANTER CO., Chicago, Ill.

PRUSSIAN COUGH & DISTEMPER CURE
Cures Cough, Distemper, all Throat and Lung Trouble. Purifies the blood. Treats the animal in condition. See Prussian Remedy Co. St. Paul, Minn.

WHEN HIS TURN CAME.

The story is told of an Irishman who bitterly resented the prejudice against his nationality that he believed constantly militated against him. On one occasion, when he applied for a place on a sailing vessel, the captain asked for a reference.

"A reference!" exclaimed the Irishman, "for a common sailor's job!"

But the captain insisted, and the reference had to be obtained before he was engaged. When presently another applicant, an Englishman, was engaged for a similar place, but without demand for reference, naturally the Irishman was indignant. He was, of course, obliged to smother his anger, but he cherished his grudge against both the other sailor and the captain.

One day the two sailors were at work near each other, each with a pail of soapuds scrubbing off the deck. The Englishman was resting his pail on the rail for an unguarded moment, when a sudden lurch of the vessel sent him overboard with his implements.

The Irishman arose shouting lustily; then recollecting himself he suppressed the "man overboard" that came to his lips.

As the captain and others came running to see what the hubbub meant the Irishman waved his arms dramatically toward the unfortunate sailor struggling in the water.

"The Englishman that ye took without a reference sor," he said, "is gone off wid yer pail!,"—New York Times.

MONEY'S LACK OF WARMTH.

Here is a good-fellowship story that is going the rounds, says the Emporia (Kan.) Gazette: Give a man a 10-cent cigar and he will beam all over and love you for six hours; offer him the 10 cents with which to buy it for himself and he will throw it in your face. Give a man a pass to a show and he will call you a good fellow in all the languages at his disposal; offer him the money to buy a ticket, and he will call you a fool. Ask a man to your home to take "pot luck" and he will jump at the chance; give him \$2, and tell him to get a good meal at a cafe with your compliments, and he will knock you down. The dollar is mighty, but it isn't warm. Nothing chills hospitality and good fellowship more than atouch of cold metal.

HAD NO STATISTICS.

"George," murmured the young wife, "am I as dear to you now as I was before we married?"

"I can't exactly tell," replied the husband, absent-mindedly. "I didn't keep any account of my expenses then."

Clark County, Miss., Jan. 30, 1906.

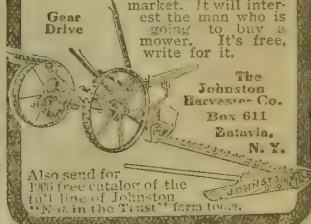
I think the Southern Planter should be in every farmer's house, especially in the South. H. B. BARBOR.



An ideal mower, with superior features all over it. The man who buys a Johnston No. 10 Mower gets the best mower bargain on the market today. It requires least trouble to operate, is always ready for work and will cost him very little for repairs. It is built high for power and wide for balance and even draft. Runs smoothly, cuts a clean swath and is convenient to operate in light or heavy crop, on rough or smooth ground. Its roller bearings and its separate bushings, which do not heat, make it lightest in draft, the

Easiest Mower on Man and Team

It is built to wear well and to work well—a thoroughly well built machine of the well-known "Johnston" quality—the kind a practical farmer likes to buy. The Johnston Mower folder tells all its good features, shows how it works and how it's built, and tells why it's the best mower bargain on the market. It will interest the man who is going to buy a mower. It's free, write for it.



Also send for 100 free catalog of the full line of Johnston "N. Y. in the Trust" farm tools.

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From less apples and more juice than less grapes are produced without press than with many other press made. The extra yield of juice soon pays for the press. A

HYDRAULIC PRESS

For a stem work in your orchard will press a one-acre orchard, 25 sizes, land or power, 25 to 200 barrels per day. Presses for all purposes. Also Steam Evaporators, Apple Juice Cookers, and Gasoline Engines.



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Beats all Farm Fence at your price. Address B. B. FENCE CO., Box 60, Peru, Ind.



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This gate can be placed at any driveway entrance, attached to ordinary posts and soon pays for itself in time saved.

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A beautiful decorative fence, made of wood, large quantities from stock. All prices to churches and societies.

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The best wire fence ever made. Sold by the roll. 100 ft. roll weighs 25 lbs. 100 ft. roll weighs 25 lbs. 100 ft. roll weighs 25 lbs.

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FENCE STRONGEST MADE. Both iron and steel. Sold to the Farmer at Wholesale Prices. Fully warranted. Catalogue free. **COILED SPRING FENCE CO., Box 12, Winchester, Indiana.**

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Catalogue free. **DOW WIRE & IRON WORKS, LOUISVILLE, KY.**

HOW TO MAKE AN IDEAL LAWN.

HERMAN HUMPHREY, FRANKLIN CO., O.

An ideal lawn around a home adds much to the beauty of the place. Too few farmers, however, give this matter the attention they should. Three general sections are usually recognized in this country, each of which requires certain kinds of grass for an ideal lawn. In the northern states, extending from the Atlantic to the Pacific, with very few exceptions, Kentucky blue grass is considered a standard for lawn making. In the most northern states redtop and the other bent grasses have been used to good advantage. They do best on moist, clay and loamy soils. Along the Atlantic coast from Maine to Virginia, blue grass does not do well. Redtop and the bent grasses in this section are preferable. They also supprede the blue grass in New England and other places along the coast.

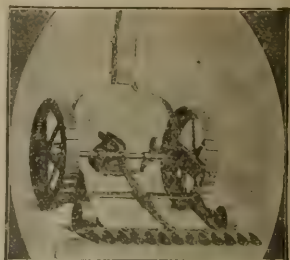
In the government parks and public grounds in Washington, D. C. redtop is used almost exclusively. In the southern states Bermuda grass is the old reliable standard. It will not stand frost however and with the first autumn changes, the green lawn becomes brown and crisp. St. Lucie grass a variety related to the Bermuda and St. Augustine grass and coarser species of the Florida Coast, are also used in lawn making in the South.

Much care should be given to the preparation of the seedbed. The sward should be plowed and spaded 10 to 12 inches deep and the ground worked over carefully. Well-rotted barnyard manure is one of the best all round fertilizers that can be used in the preparation of the lawn. This should be worked in thoroughly while the seedbed is being prepared. It should be remembered that this plant is going to remain there for some years and there should be plenty of it. From 30 to 40 tons of good, well-rotted manure per acre is none too much for a lawn of this character.

It is also desirable to add phosphoric acid and potash in larger quantities than is usually supplied by the manure. Bone meal at the rate of 300 to 600 pounds per acre or superphosphate of lime, commonly called acid phosphate, in smaller quantities will supply the needed phosphoric acid. Wood ashes where available will supply potash and can be put on at the rate of five or ten tons per acre. Kainit may also be used as a source of potash. The fertilizer should also be thoroughly worked into the soil at least ten days before the seeds are planted. The standard weight per bushel of blue grass seed is 14 pounds in most states. For blue grass and redtop many grades are quoted at 14 to even 40 pounds per bushel, the difference in weight being due almost entirely to variation and the amount of chaff present.

Clipper Lawn Mowers

Will cut short grass, tall grass and weeds. If your dealers have not them here is the price:
No. 1—12 in. \$5.00 No. 2—15 in. \$7.00
No. 3—18 in. \$7.00 No. 4—21 in. \$8.00
Pony 24 in. \$18.00.
Send draft or money order.



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HURST'S POTATO SPRAYER
FREE TRIAL
Sprays Everything. Potatoes, Turnips, etc. & kills all weeds. 25 days for trial. No money back. Write for trial. H. L. Hurst Mfg. Co., 1517 North St. Canton, O.

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All latest, easiest working, most powerful, automatic mixer, expansion valves, double strainer. Catalogue of Pumps and Treatise on Spraying free. **AGENTS WANTED.** J. F. Gaylord, Box 22, Catalina, N. Y.

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and other INSECTS killed by **GOOD'S**

Caustic Potash Whirl-Oil Soap No. 1

Endorsed by U. S. Dept. of Agri. and State Experiment Stations. This Soap is a perfect as well as an insecticide. 50 lb. can, \$2.50; 10 lb. can, \$1.00; 5 lb. can, \$0.50. Write for Booklet, 2706-30c per lb. barrel, 45 lb., 3c. Send for Booklet, JAMES GIBSON, Original Maker, 959-41 N. Front Street, Philadelphia, Pa.

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FROM RAISING A business that starts on small investments and brings large returns. Our new book gives you the practical knowledge. Price postage \$1.00. The book will teach you HOW TO BREED, FEED & RAISE FROGS. **MEADOWBROOK FARM, ALLENDALE, N.J.**

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A. L. Rice, a prominent manufacturer of Adams,
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all that is required is cold water to make a paint
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Write to Mr. A. L. Rice, 94 North St., Adams,
N. Y., and he will send you a free trial of his new
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able book on Painting, all free. This book lets
you into all the secrets of paint-making, exposes
fake paints, tells you what kind of paint to use for
different purposes and shows you how you can
save and make a good many dollars. Write today
and the book and free trial of paint will be sent
you by return mail.

From three to four bushels of good seed weighing at least 25 pounds to the bushel is the proper amount to sow. At the rate of four bushels per acre, one quart would be sufficient for about 340 square feet of surface or an area. of 17x20 feet. The seed can be sown by hand or with a grass seeder and should be immediately covered. This may be done with an iron rake, which should be followed with a roller where one is convenient. Use the rake lightly, as the seed will not germinate well, if covered too deeply. About one-eighth inch is an ideal depth and one-fourth inch is as deep as it is safe to cover it. A careful use of the roller usually presses the seed as deeply into the soil as is necessary if the ground has been properly prepared.

On small areas a light mulch of well-rotted, leaf mold or similar substance will be of great benefit. Watering where necessary should be done with great care while the seed is germinating. The seed may be sown almost any time in the year, but the early spring and early fall months are, decidedly preferable. Spring sowing should be done as early as possible so that the grass can be firmly established before hot weather sets in. Fall sowing should be done the latter part of August or early part of September.

ABSENT-MINDED.

A minister's wife, a doctor's wife, and a traveling man's wife met one day recently, and were talking about the forgetfulness of their husbands. The ministers wife thought her husband was the most forgetful man living, because he would go to church and forget his notes and no one could make out what he was trying to preach about. The doctor's wife thought her husband was the more forgetful still, for he would often start out to see a patient, and would forget his medicine case and travel nine miles for nothing. "Well," said the traveling man's wife, "my husband beats that. He came home the other day and patted me on the cheek and said: 'I believe I have seen you before—what is your name?'"

IN BOSTON.

MRS. TWITTER—"I never was so provoked in all my life. The conductor of that car saw me plainly enough; but he permitted his car to go right by without stopping."

MR. STREETER—"Of Course you signaled to him?"

MRS. TWITTER—"Signaled to him? Mercy, no! Why the man was a perfect stranger to me."

Spottsylvania County, Va., Jan. 30, '06.

I am quite delighted with the Southern Planter and cannot afford to do without it.

GEO. W. CLARK.

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FREE We have just published several new books, which we will send free to anyone interested. They tell you just how to proceed to build a telephone line to your farm; how to interest your neighbors; how to organize the company; and how to build, and cheaply, such a line can be built. One of the books describes

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the kind that makes rural lines successful. Write for book 1133, "How the Telephone Helps the Farmer," and also for the book "How to Build a Rural Telephone Line." They will furnish you valuable information you can get in no other way. Simply drop us a postal card asking for them, and for any other facts you may desire. Do it today and save delay.

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Write for free book explaining cost and how to organize, build and operate a telephone system among your neighbors. Write to
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BOOK FREE How to put them up—what they cost—why they save you money—all information and valuable book free. Write to J. Andrae & Sons, 394 W. Water St., Milwaukee, Wis.

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in all portions of the United States. No collection. No Charge. Agents wanted everywhere. 25 years' experience—PALMOR'S COLLECTION AGENCY, 311 Main St., Richmond, Va.

FUMA kills Prairie Dogs, Wood chucks, Gophers, and Grain Insects. "The slow but exceedingly small" So the weevil, but you can stop their grind with Fuma Carbon Bisulphide as are doing.

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Old field pine made to last longer than cedar or locust by creosoting with dead oil of coal tar. The creosoting of lumber makes it practically indestructible, stops all rot and is absolute death to all insects. Write for prices to the NORFOLK CREOSOTING CO., Norfolk, Va."

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DEEP WELL DRILLING a specialty. Estimates made free of charge in all localities. If you want any work done write M. S. SCHAILL, Michaux, Va.

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For the treatment of THE LIQUOR, OPIUM, MORPHINE and other Drug Addictions. The Tobacco Habit. Nerve Exhaustion.

TWO WAYS OF DEALING WITH ER
RING BOYS.

Seven years ago, before there was such a thing as a juvenile court, a boy of nine was arrested in Denver for burglary. He was brought into the criminal court, tried as a burglar, and sent to jail. He served a term of years during which he learned thoroughly the trade which he had been accused of plying. When he was released he began to practice in earnest. He was rearrested, recommitted, and, after a second term, turned loose again, a more accomplished burglar than before. A few months ago he was shot at by the Denver police in an attempt to escape a third arrest. He was captured and brought into the Juvenile Court, still a mere child that ought to have been going to school.

Judge "Ben" B. Lindsey, who presides over this tribunal, was confronted by a bold, hardened, and unnatural sharp young expert in crime who had mystified the police by telling half-a-dozen different stories. Judge Lindsey began by telling the boy that he didn't believe him to be half as "tough a kid" as the police had made him out, and that he would not be "sent up" if he was "square with the court" and made a clean breast of his trouble with the "cops."

This new treatment got from the boy his real story. He had been led into his first offense by a desire for a knife with which to make a kite. His father refused to get him one, and he broke into a barber shop and took a razor. According to the letter of the criminal law, the boy had committed a burglary. As there was no "juvenile" law at the time, he was dealt with as a professional housebreaker. Asked about his first trial, he said to Judge Lindsey:

"Aw, de guy wid de whiskers, wot sat up on de high bench looked over at de 'cop,' and de 'cop' he says, 'Dis is a very bad kid; he broke into Smith's barber shop and took a razor, and he admits it, yer Honor.' Den de guy on de high bench sends me up without givin' me a chance to say a word."

Thus, the boy was well started on a criminal career before he was ten years old. Fortunately, he fell into the hands of the Denver Juvenile Court, which had been established in the interval between his second and third arrest, while he was still able to "pull up." Instead of telling him that he was a bad boy and sending him to jail again, Judge Lindsey told him that he was a "bully fellow" and set him free—on probation. To-day that boy is still going uphill as fast as he was going downhill before.—Review of Reviews for March.

Alleghany County, Va., Jan. 17, 1906.

I am more and more pleased with the Southern Planter each year and think no farmer ought to be without it.
JNO. A. KING.

THE
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SON
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is often shown preference by the merchant or banker searching for a competent office help. Some of our most successful graduates are boys from the farm. Let us train your son for a life where promotion and ultimate success are assured. We will send you our catalogue if you will write our nearest college.

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Write for booklet giving plan and explaining how you can become a member of the...

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thus securing cheap fire protection. Property insured \$50,000 average most for \$1.00 per year. \$8.00. Estimated premium, over \$1,000.00. Memberships and risks limited to Eastern Va. CHAS. N. FRIEND, Gen. Agent, Virginia Division, CHESTER VA.

ORGANIZED JANUARY 9, 1899

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GOOD, big "mealy" potatoes can not be produced without a liberal amount of POTASH in the fertilizer—not less than ten per cent. It must be in the form of Sulphate of POTASH of highest quality.

"Plant Food" and "Truck Farming" are two practical books which tell of the successful growing of potatoes and the other garden truck—sent free to those who write for them.

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Its wearing qualities are unsurpassed, as really outlasting 3 bxs. any other brand not affected by heat. Get the genuine FOR SALE BY ALL DEALERS

DENATURIZED ALCOHOL FOR FARM PURPOSES.

By C. J. ZINTHO, U. S. DEPT. OF AGRICULTURE.

(From THE GAS ENGINE, January, 1906.)

The object of this article is not to augment the consumption of alcohol as a beverage, but to find channels other than a digestive one, for its employment. Alcohol in its abuses constitutes a danger of mankind, but it has been proved that it can rival gas, acetylene and electricity for lighting and domestic uses. That which causes disorder of the stomach of man agrees perfectly well with the internal organism of stoves, lamps and motors. Ethyl alcohol, which forms the basis of all fermented liquors, is the oldest and best known of the whole group of alcohols, and is generally designated by the simple name, alcohol. It may be produced in various ways. Science enables us to employ an inexhaustible series of products of the soil, and has created a new source of riches for the agriculturist. The materials used in the production of alcohol are of two classes—those containing starch and those containing sugar. In the first class are included potatoes, corn, rice, barley, oats, rye and wheat. In the second class are sugar and molasses from sugar beets and cane sugar. The potato has been used for the manufacture of alcohol since the eighteenth century, and in many parts of Europe it constitutes the most important raw material for its production. Experiments to produce vigorous potatoes from seed and secure a high percentage of starch, which is of the greatest importance for the manufacture of alcohol, have met with very good success. Diseased potatoes, except when attacked by dry rot, can be advantageously utilized for the manufacture of alcohol because the chemical changes produced by the disease extend more to the skin and less to the starch.

Corn is extensively used for distilling purposes in the United States, Hungary, and Italy. It contains 60 to 75 per cent of starch, and in addition about 11.5 per cent of sugar, and 4.8 per cent. dextrin. By breeding and selection, the amount of starch in corn can be largely increased, thus making it an ideal cereal for the manufacture of alcohol for industrial purposes.

Barley, rye, oats, wheat and rice contain from 42 to 78 per cent. of starch, which, when the price will permit their use, are valuable materials for the manufacture of alcohol.

In the manufacture of alcohol from sugar beets, the yield depends solely on the percentage of sugar. The selection of the best beets for distilling purposes is not of importance, and beet which can not be advantageously worked for sugar may be practically utilized for alcohol.

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A wonderful offer to every lover of music, whether a beginner or an advanced player. Ninety-six lessons (or a less number if you desire) for either Piano, Organ, Violin, Guitar, Banjo, Cornet or Mandolin will be given free to make our home study courses for these instruments known in your locality. You will get one lesson weekly, and your only expense during the time you take the lessons will be the cost of postage and the music you use, which is small. Write at once. It will mean much to you to get our free booklet. It will place you under no obligation whatever to us if you never write again. You and your friends should know of this work. Hundreds of our pupils write: "Wish I had known of your school before." "Have learned more in one term in my home with your weekly lessons than in three terms with private teachers, and at a great deal less expense." "Everything is so thorough and complete." "The lessons are marvels of simplicity, and my 11-year-old boy has not had the least trouble to learn." One minister writes: "As each succeeding lesson comes I am more and more fully persuaded I made no mistake in becoming your pupil."

We have been established seven years—have hundreds of pupils from eight years of age to seventy. Don't say you cannot learn music till you send for our free booklet and audition offer. It will be sent by return mail free. Address: T. S. SCHULTZ, OF MUSIC, Box 144 B Union Square, New York City.

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This Co. means business and can furnish best references. Send for Contract. Dept. AT Royal Co.-Op, Mfg. Co., Indianapolis Ind

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No. 30.—Contains 130 acres, 6 miles from R. R. Near McAdam, Pike, 75 acres cleared, 46 acres in timber, land is a little rolling, a good quality of red clay, a good young orchard, just beginning to bear. Farm watered by stream and well. Comfortable 4 room house, new granary, stable for 4 horses, 1-4 mile to school, 1 mile to Stores, church, P. O., and shops, situated in a good neighborhood. Price, \$1,400, on easy terms.

No. 41.—25 acres; 10 miles from Washington, D. C.; 2 miles from an electric and steam railroad. Thirteen room house in nice shaded lawn, 2 cellars, well at house. Nice orchard, in full bearing. All necessary out-buildings in good repair. Price, \$3,500.

No. 43.—30 acres; an elegant brown stone house, with 6 rooms, 2 porches. Three acres young orchard, in full bearing. All necessary out-buildings, in good repair. A large barn, 2 story building, with 2 sets of corn cribs, has 20 foot water fall. Situated in a thickly settled and refined neighborhood. Mill is in thorough repair and doing a good local business. Price, \$2,000.

No. 51.—515 acres, natural Blue Grass land; well fenced; elegant well water. Good 5 room house, with all the necessary small farm houses in good repair; good sheep barn, 100x40. Thrifty young orchard of apples, peaches, pears and cherries. Land is all in grass, except about 40 acres, that is in corn now. Close to schools, church, mill and post-office, four miles from railroad. This farm usually sends off from forty to fifty export cattle in September. It is located in a beautiful section of the county of Loudoun, 25 miles from Washington, D. C. Price, \$15,000 per acre, one-third cash.

No. 55.—Large merchant mill, new process, all modern improved machinery, cost about \$14,000, situated in one of the finest grain sections of Northern Virginia, two and one-half miles from railroad. Ample water power and fine mill race, but the land is a splendid boiler and engine to aid power in the event of a drought. For sale to settle an estate. Write for full description. Price, \$75,000, on very easy terms.

Write for full information and price list of other farms.

No. 71.—260 acres; a fine body of white oak timber. This land is just rolling enough to drain well; it is a fine quality of land and is 1 mile from the R. R. This timber is estimated to cut from two to three thousand feet of lumber to the acre. The land stone is worth more than I am asking for both, and a quick business man can buy this tract and make up the clear, either the land or the timber. It will not be on the market long at the price I am asking. Price, \$15 per acre.

No. 75.—Contains 60 acres of Good, Land Fronting on McAdams Pike, Land a little rolling, but considered Level, well fenced, about 10 acres in timber, 23 Miles from Washington. Thirty young orchards, all in pears and pear, good 6 room house. Stable and other out houses all in good repair, 1-4 mile from store, P. O., mill, and shops, in elegant neighborhood. Price \$1,250.

No. 106.—Contains 330 acres; 250 acres cleared, and very well fenced, this was at one time one of the finest farms in its section; it is naturally a fine quality of soil, but has been rented for several years, and has the face knocked off; it is a chocolate Clay Soil, which is easily improved and will hold improvement after receiving it. 50 acres of rich bottom land on Bull Run river; the dwelling is a comfortable 5-room house, and all other buildings are in very good repair. This farm will be sold on very easy terms, and would soon pay for itself grazing cattle and sheep, 4 miles from railroad station, 1 mile from store, and post-office. Price \$500.

W. E. MILLER, Herndon, Va.

Molasses, which remains as a residue in the manufacture of sugar, is utilized for the manufacture of alcohol. The percentage of sugar in molasses is about 50 per cent.

Of the raw materials containing sugar, which can be utilized in the manufacture of alcohol, are Jerusalem artichoke, the gigantic carrot, chicory, sorghum stalks are corn stalks.

The denaturization of alcohol is accomplished by mixing with the ethyl alcohol a small proportion of repugnant ingredients, which, while not injuring its efficiency for technical uses, render it unfit for consumption as a beverage. The denaturizing substances employed depend upon the use to which the alcohol is to be subsequently applied. They include pyridin, picolin, benzine, wood vinegar, wood alcohol, gasoline and acetone oil (derived from the grease of the wool of sheep), as well as other similar products.

For several reasons the subject of the technical use of alcohol has reached in Germany an advanced stage of development, which if followed by the United States will mean a great chance in our agricultural and industrial development. Germany has no material gas wells or native petroleum supply. When some years ago the question of adopting motor carriages for military purposes was under discussion it was remarked by the officials of the War Department that kerosene and gasoline engines could be operated only with one or the other of the products of petroleum, which is not found in Germany and the supply of which may in case of war be wholly cut off. But the broad, sandy plains of Northern and Central Germany produce in ordinary years cheap and abundant crops of potatoes, from which is easily manufactured by processes so simple as to be within the reach of every farmer, a vast quantity of raw alcohol. Under these conditions, "spiritus," as it is known in Germany, became one of the standard and important products of agriculture, and every effort has been made by the Imperial and State governments to promote and extend its use for domestic and industrial purposes. A law was passed in Germany which maintains a very high tax on alcohol intended for drinking, but exempts from taxation such alcohol as is denaturated and used for industrial purposes. Since the passage of the above law, inventors and scientists have been busy in the improvement of processes and the manufacture of distilleries. Now perfected motors, lamps and cooking and heating apparatus have been devised and put in use, until crude alcohol is becoming one of the most widely utilized products of German industry.

For lighting purposes, as alcohol gives a non-luminous flame, a chemical mantle is used similar to the welsbach burner, which produces a very

FOR SALE Ideal Virginia Farm.

1 Wolvene 4-horse sweep power, with level gear, jack and pulley, etc.

1 Eureka mower, 5 foot cut, 1-two H. P. gasoline engine, all good as new.—F. E. WINKLER, Cedon, Caroline Co., Va.

"CHANTILLY," 1000 acres in Fairfax County, five miles from railroad, twenty miles from Washington, D. C., by pike, and it is believed to be directly in line of a proposed Electric road.

This farm was the home of the "Stewarts." Is not only a beautiful and fertile, but perhaps the largest of the old-time estates now to be had in Fairfax, but combines a beautiful and delightful country home and a thoroughly practicable and profitable investment.

The improvements consist of a modern new ten-room dwelling house, 100 foot barn and large barn and shed for sheep. There are also comfortable tenant houses and cheaper farm buildings on the premises.

The view from the main residence which fronts on a large and richly shaded lawn, is very fine, including two mountain ranges with a rich scene of farms and homes intervening.

Has on it about 200 acres of valuable hard wood timber and about 150 acres of blue grass said to be over sixty years old. Balance of land in good cultivation. Is well fenced and finely watered. Is thoroughly equipped. Can be had with or without equipment.

Price \$35,000, on favorable terms. Will enhance in the near future. For further information address,

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bright, intense and economical light, costing but one cent per burner; per hour, for 71 candle power. For the production of heat generally it is simply perfection, and nothing has yet been found to equal ethyl alcohol for this purpose, owing to the fact that it produces perfect and complete combustion.

Alcohol made repugnant to the taste is being used as an incandescent light. Instead of being drunk, it is burned. It propels the farm motor, the automobile and the launch, and the simple fact of obtaining denaturation permits each private citizen to light his farm or factory, to heat his home, do farm work, or transport himself. One of the neatest of the many new devices used in Germany is an alcohol flatiron with a small reservoir, which being filled with alcohol and lit, heats the iron for the hour's work, at a cost of less than two cents. The cleanliness and economy of these figures to the housekeeper, are obvious. For farm motors alcohol is a perfect fuel because of its complete combustion, the absence of its noxious odor, its uniform quality and its unlimited and universal sources. While it is true that the heat of combustion of alcohol is practically only half that of gasoline, yet twice as large a percentage of heat can be converted into useful work as in gasoline, and hence point for point, alcohol is an efficient as gasoline.

Only slight modifications of gasoline engines adapt them to the use of alcohol—a fact which is of much importance, since an engine to be efficient and practical for general use must not be too highly specialized. Because of the great elasticity of the charge after ignition, the stroke on an alcohol engine to be most efficient ought to be about double the bore of the cylinder. A high compression and comparatively cool mixture should be attained, and a good spark complete vaporization and a complex mixture of the charge secured. Alcohol of 90 per cent. strength, with 10 per cent. of water is usually employed. Whenever small engines can be used and a power safe in every respect is of value, the alcohol motor can be advantageously employed. Its spread during the few years of its existence in Europe, has attained quite unexpected proportions, and will doubtless continue. Since 1896, the law in Belgium has exempted from taxation alcohol for industrial uses. Since that time this has also been done in France, Austria, Hungary, Belgium, Italy and Russia.

Special documents show that in the United States alcohol was used for lighting, cooking and industrial purposes in the early sixties. Before the war of secession, the manufacture of spirits was free from all special taxes and supervision, as much on the part of the Union as on the part of the States which composed it. It resulted

IDEAL VIRGINIA HOMES.

SOME GOOD BARGAINS FOR AN IMMEDIATE PURCHASER, NEAR STEAM AND ELECTRIC R. R. AND NEAR WASHINGTON WHERE WE HAVE THE BEST OF MARKETS.

No. 17.—1255 acres, 65 clear, 7 room house, some outbuildings, well watered, plenty of nice fruit, 3 miles from R. R. and about 19 miles from Washington. Price, \$1,000.00 on easy terms. 1-3 cash, the balance to suit.

No. 21.—100 acres, 90 clear, 7 room old time house, some outbuildings, plenty of fruit, good spring nearby, 3 miles from R. R., near school, churches and stores. Price, \$1,800.00

No. 41.—100 acres adjoining the corporation of Fairfax: 1-2 miles from the electric R. R. Price, \$40 per acre. This will make a good farm.

No. 55.—140 acres, 70 clear, the balance in fine timber, 5 room house, good barn 20x40, fine spring, plenty of fruit, 3 miles from electric R. R., near school church and stores. Price, \$20 per acre; terms, 1-3 cash, the balance to suit.

No. 57.—100 acres, 25 clear, 1 mile from store, P. O. and school. Price, \$1,100.00. This will make a nice cheap home. It is located on two public roads.

No. 59.—Nice blue grass farm, 2 sets of buildings, new 8 room house, cement cellar, water at the door of each house, nice new barn and all necessary outbuildings, 500 fruit trees, 11 good springs, well fenced. This will make a nice stock farm, or will divide and make two farms. This is a nice piece of property, is in a nice farming locality, is about 21 miles from Washington. Price, \$3,500.00, on easy terms.

No. 135.—53 acres, 40 clear and in good state of cultivation, new 6 room house, a large store house and all necessary outbuildings. This is a nice, cheap piece of property, the store is doing fine business. Price, \$3,000.00 on real easy terms. I consider this a valuable piece of property and very reasonable.

No. 139.—290 acres in a high state of cultivation, has a nice colonial house, fine shade and plenty of good water. General Washington and General Braddock made their headquarters in this house when marching from Alexandria to Winchester in the year of 1755-1756. Price, \$8,000.00

No. 147.—Fairfax Hotel; 4 story brick; 23 rooms, including a store and livery stable that are doing a good business. This property occupies a whole square, and is a very profitable business. Price, \$3,500.00 on easy terms. Will exchange this property for a nice farm. It will pay you to inspect this property, it will make a fine investment.

No. 159.—735 acres; will make a fine stock farm. Fine brown stone mansion, beautiful sandy lawn, has two tenant houses and all necessary outbuildings. Price \$30 per acre. It will pay you to inspect this place.

No. 173.—Fine fruit farm; 734 acres, 5 room house and all necessary outbuildings, well at the door, 1,500 fruit trees in fine shape, place well fenced, 2 miles from electric R. R., 17 miles from Washington. Price, \$3,000.00. This is a cheap place, as the owner will pay for it all.

No. 228.—1344 acres, 74 clear, 7 room house, good cellar and porch, new barn well fenced, all varieties of fruit, 1½ miles from R. R., near church, school and stores. Price, \$3,800.00 on easy terms.

No. 230.—145 acres, 7 room house, small barn and all necessary outbuildings, well at door, stream through the place, 10 acres in apple orchard, 2 miles from R. R., located on the pike 2 miles from Washington, this will make a nice farm. Price, \$3,000.00 on easy terms.

No. 234.—924 acres, 82 clear, the balance in fine timber, 8 room house, nice shade, large barn and carriage house, young peach orchard of 500 trees, a number of large apple trees, well at the door and water in every field. This will make nice home as it is in a fine farming section, 1½ miles from the steam and electric R. R. Price, \$3,000.00 on easy terms.

No. 291.—96 acres, 75 clear, the balance in fine oak timber, 9 room house, barn 20x40 and all necessary outbuildings, well fenced and watered, 2 miles from R. R., near school church and store. Price \$2,000.

No. 293.—85 acres at Fairfax station, 8 room house with cellar, barn 40x70, all necessary outbuildings, near school, church and store, this will make a fine dairy farm as it is right at the station and the farm is in a high state of cultivation. Price, \$65 per acre.

No. 305.—100 acres, 100 clear, the balance in good timber, enclosed with a good fence, has a beautiful building site, well watered. Price, \$10 per acre on easy terms. This will make a nice cheap farm, as it is only ¼ mile from Fairfax station.

No. 308.—50 acres, 40 clear, 6 room house, barn 20x34, spring near the house, some fruit. The farm is well fenced and in good condition, 6 miles from R. R. Can give immediate possession. Price, \$1,000.00 cash. This is a very cheap place.

No. 315.—183 acres, 7 miles from the R. R., about 23 miles from Washington. Price, \$20 per acre; 12 horse power mill and engine with planing, saw, grist mill and oil crusher on the place. Will sell the mill complete and give the purchaser the contract to save the timber that is on the place. This is a good chance for anyone to get a start.

No. 319.—210 acres, about 20 clear, 4 room house, spring nearby, near R. R. station, school church and store. Price, \$1,500.00 on easy terms.

No. 321.—100 acres, 50 clear, 4 room house, barn 20x30 and all necessary outbuildings, all kinds of fruit, ½ mile from R. R., school, church and store. Price, \$1,600. ¼ cash, the balance to suit.

No. 322.—82 acres all clear, 10 room house, barn 50x20, brick meat house, all necessary outbuildings, all kinds of fruit, 10 room stone 500 fruit trees, house and all necessary outbuildings, plenty of pure water, peaches and apples, a large saw and grist mill with bolting crusher is run by water and steam power. The grist mill is 51 feet long and 42 feet wide, 3½ stories high; saw mill attached is 40x40 feet. City of 2,000 feet a day. The mill is kept busy all the time, is in a fine neighborhood, will make a fine investment. Price, \$5,500.00. This property must be seen to be appreciated.

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from this freedom that alcohol served a multitude of industrial uses. The production was enormous, amounting to 90,000,000 gallons, coming especially from the distillation of corn. For lighting purposes enormous quantities were employed. In 1864 the city of Cincinnati alone utilized 12,000 bushels of corn per day for distillation. Because of its low price alcohol was also used as fuel for the domestic kitchen, for bath and laundry. Denatured alcohol has been produced in Germany chiefly from potatoes, and sold for 13 cents per gallon. It is stated in the March number of Power. 1901, that a New York distiller produced alcohol at a cost of 8 cents per gallon. It was sold in New York in carload lots at \$2.26. The tax is \$2.08 per gallon, which would leave 18 cents to cover cost of production, profit, and risk of tax. Distillers claim that from 40 cents corn, alcohol can be manufactured for 13.1-2 cents per gallon of 94 per cent. strength. In Cuba, Peru, Brazil and other sugar producing countries, alcohol is manufactured from the waste products, and hence very cheaply produced. The present price in Cuba is about 10 cents per gallon. It is thus seen that alcohol can successfully compete in price with gasoline, which now sells for from 12 to 22 cents per gallon. There is an urgent need in this country for free alcohol in the field of heat power and light. Within the past five years there has been a remarkable increase in the output of gasoline engines, and more particularly among the smaller sizes. When the fuel requirements of the engines of a rapidly growing automobile industry, in addition to an annual output of over 100,000 gasoline engines, is contemplated, it becomes a question of the most vital importance. The average percentage of oil of gasoline in petroleum from all the oil fields of the world is less than 2 per cent., and this fact taken in connection with the constant increasing demand accounts for the great increase in the price of gasoline within the past few years. The supply must eventually be exhausted. In view of these facts it seems apparent that through false economy the people may be deprived of a natural resource. The use of alcohol for fuel purposes would benefit the farm by producing a market for a great many starchy materials unfit for, or unnecessary to consumption, and at the same time reduce the cost of motive power for farm work.

The fact that all foreign countries have laws providing for free industrial alcohol and that alcohol is being successfully employed by these countries for such purposes to the great injury of our own trade, is striking evidence of the wisdom and practicability of removing the tax on alcohol in this country. A law for this purpose will bring prosperity to the greatest body of our best and truest citizens, the American farmers, who



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QUEENS, \$1.75; VINELESS, \$2.25; HAYTIS, \$2.50; PUMPKIN YAM, \$3.00; EARLY RED SKIN, \$3.00, all per crate of about 3 bushels. All prices f. o. b. here.

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will derive from their farm products of corn, wheat, potatoes and waste products, denatured alcohol, by which they will be able to light and heat their homes, cook their food and drive their engines; which will furnish power for the farm implements, pump water for the cattle and for irrigation; as well as numerous kinds of other farm labor. Favorable action on a subject of such vast importance and one in which the need for action is becoming so acute, should not be long delayed by a government "committed to the protection of home industries." Every one who uses one or more of the thousand articles requiring alcohol in their manufacture; every one who is obliged to accept cheap and noxious substitutes which may be foisted upon him instead of alcohol, for legitimate purposes, and every one interested in the price of corn and other farm products of which alcohol may be manufactured, has a grievance against the Government which refuses to allow its sale denatured.

THE FIRST CORN ARTICLE WRITTEN.

The first settlement of Englishmen in North America was made on the coast of what is now the state of Virginia, in 1585, thus preceding the Pilgrim fathers by thirty-five years. Among those pioneer colonists was one Thomas Hariot, who wrote a detailed account of the natural resources and soil products of that locality. His account was published in book form in London in 1588, and two years later an edition was published in Frankfurt, illustrated by De Bry, an eminent wood engraver of his time. From a copy of this last edition the following is taken, says Farm, Stock and Home. It should be found interesting as the first article ever written on Indian corn in North America, and also as a specimen of English "as he was writ" over three centuries ago:

"Pagatour, a kinde of graine so so called by the inhabitants; the same in the West Indies is called Mayse. Englishmen call it Guinney wheate or Turkie Wheate, according to the names of the countreys from whence the like hath bene brought. The graine is about the bignesse of our ordinary English pease, and not much different in forme and shape, but of diuers colors; some white, some red, some yellow, and some blew. All of them yeele a very white sweete flower; being used according to his kind it maketh a very good bread. We made of the same in the country some mault, whereof was brewed as good ale as was to be desired. So likewise by the helpe of hops there.. may be Beere.

"It is a graine of marvellous greate increase; of a thousand fiftene hundred and some two thousand folde. There are three sortes, of which two are ripe in eleum or twelue weeks at

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the most; sometimes in ten after they are set, and are then in height of stalks about six or seven foute. The other sorte is ripe in fourteene, and is about ten foot high; of the stalks some bear four heads, some three, some one and two; every head containing flue, sixe, or seven hundred graines within a few more or less. Of these graines besides bread the inhabitants make victuall evtheer by parching them or seething them whole untill they be broken, or boyling the floure with water into a pappe."

The planting of corn:

"Then their setting or sowing is after this manner. First for their corn, beginning in one corner of the plot, with a pecker they make a hole wherein they put four graines with what care they touch not one another (about an inch asunder), and cover them with the mould again, and so through out the whole plot, making such holes and vsing them after such manner; but with this regard that they be made in rankes, every ranke differing from other half a fadome or a yarde, and the holes also in every ranke as much. By this means there is a yarde spare ground between every hole; where according to discretion here and there, they set as many Beanes and Peaze, in diuers places also."

The disposition to boom a new country was evidently as strong then as now, as the following testifies:

"The ground being thus set according to the rate by us experimented, an English Acre containing fourtie peaches in length and foure in breadth, doth there yield in crophe of corn, beanes and peaze at the least two hundred London bushelles; whereas in England fourtie bushelles of our wheate yielded out of such an acre is thought to be much."

Editor Southern Planter:

In the interest of my fellow farmers and stockmen, I wish to call their special attention to the Ad. of Mr. C. E. Jones, Carysbrook, Va. on page 259 of the March Planter, of his Angus cattle, which for symetry and beauty I am sure can not be surpassed.

Passing through his beautiful farm recently, with a friend from Ohio, who knows a good steer when he sees it,—we came upon a bunch of his broad-back-blacks, and as we stopped to look at them, the Ohio man remarked that they were as nice as any he had seen in his state, the price on which went into three and four figures.

You will not only find Mr. Jones a courteous, Christian gentleman, but a man well posted on the stock he handles.

H. W. ELLETT.

Fluvanna Co., March 19 1906.

Warren County, Va., Jan. 16, 1906.

I have found the Southern Planter a very valuable assistant.

E. C. GATEWOOD.

STOCK OWNERS USE



Foutz's

HORSE AND CATTLE

Powder

The oldest, best known, most reliable, and extensively used of all Condition Powders. It cures Chronic Cough, Heaves, Influenza, Distemper, Hide Bound, Indigestion, Constipation, and all Stomach Troubles. Restores lost appetite, and increases the assimilation. It assists in fattening and increases the quantity of milk and cream. Guaranteed to give satisfaction. Sold by Druggists, General Merchandise, and Feed Dealers, or sent charges prepaid at the following rate:

Package 25c; 5 Packages, \$1.00; 12 Packages, \$2.00.

BEWARE OF IMITATIONS and remember that each package of the genuine is covered with a pink wrapper. Send for descriptive literature.

The David E. Foutz, Co.

Baltimore, Md.


Purina Poultry Feeds

LITTLE CHICK FEED.

prevents the wasteful percentage of mortality under the average system of feeding. No bowel trouble, no lean, nervous, over-fat, over-heated chicks, resulting in leg weakness, with Purina Feed. Composed of more than a dozen kinds of the purest and most nutritious grains and seeds cleaned and screened, no grit. The best investment you ever made for six weeks' feeding.

PURINA SCRATCH, PURINA MASH, PURINA ALFALFA MEAL. If your dealer cannot supply you, write,

W. F. RICHARDSON, JR. & CO., Grain & Feed Dealers, 1015 E. Cary St., Richmond, Va., Distributors.



SLOAN'S LINIMENT

CURES 50c. and \$1.00.

Swine Disease and Hog Cholera

Send for Circular with Directions.

Dr. EARL S. SLOAN, 615 Albany St., Boston, Mass.

No More Blind Horses For Specific Ophthalmia. Moon Blindness and other sore eyes, Barry Co., Iowa City, Ia. have a sure cure.

Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use

Fleming's

Spavin and Ringbone Paste

Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 45-minute application—occasionally two required. Cures bone Spavin, Ringbone and Shiobone, new and old cases alike. Write for detailed information and a full copy of

Fleming's Vest-Pocket

Veterinary Adviser

Ninety-six pages, durably bound, indexed and illustrated. Covers over one hundred veterinary subjects. Read this book before you treat any kind of lameness in horses.

FLEMING BROS., Chemists.

280 Fulton Street, Chicago, Ills.

BEST ON EARTH



Used Over 20 Years

Terre Haute, Ky.,

April 26, 05

Dr. B. J. Kendall Co.

Dear Sirs—

I have been using your

Spavin Cure for 20

years and think

it is the best on

the market.

Respectfully yours

S. J. Cox.

Kendall's Spavin Cure

is the remedy for Spavins, Splints, Ringbones and Curbs that endures. Two cents a bottle. Its worth. Price \$1.50 for 95¢. It makes a splendid gift for family use. All druggists sell it. Accept no substitute. The great book "A Treatise on the Horse," free. DR. B. J. KENDALL CO., Ensouff Falls, Vi.



LUMPHY JAW.

Prevent its spread and cure every case permanently by using

Onstad's LUMPHY JAW Capsules

17 years a standard remedy. But a single application required. We guarantee to refund money if it fails. Good Resident Agents Wanted. Exclusive territory, good commissions. Address

THE ONSTAD CHEMICAL CO.

Room 1, 522 North N. J. St. INDIANAPOLIS, IND.

ABSORBINE

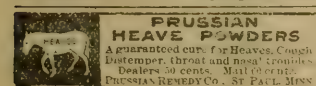
REMOVES RURAL ENLARGEMENTS, THICKENED TISSUES, INFLAMMATED PAINTS, and any PUFF OR SWELLING. CURES LAMENESS, ALLAYS PAIN

without laying the horse up. Does not blister, stain or remove the hair. \$2.00 a bottle, delivered. Sample 13¢ free.

ABSORBINE, JR., for making \$1.00 bottle. Cures Syphilis, Weeping Sore, Strains, Gouty or Rheumatic Deposits, Allays Pain. Book free. Manufactured only by

W. F. YOUNG, P. D. F.

109 Monmouth St. Springfield, Mass.



PRUSSIAN

HEAVE POWDERS

Aggravated Cough, Heaves, Cough, Discharge, throat and nasal troubles.

Dealers 50 cents. Mail 6 cents.

PRUSSIAN REMEDY CO., ST. PAUL, MINN.

WASHINGTON NOTES.

Have Nice Lawns.

The Department of Agriculture has in press a number of farmers' bulletins which should appeal to the farmer. One of these, which will be Farmers' Bulletin No. 248, is written by L. C. Corbett, the horticulturist in charge of the Arlington Experiment Station, on "The Lawn." Mr. Corbett contends that the lawn is a signal of the inner soul of the householder, showing an appreciation of beautiful home surroundings. A lawn is the accomplishment of every effort on the part of man to beautify the surroundings of his abiding place. The great increase of interest in suburban and rural life has caused a corresponding increase of interest in matters pertaining to the making and maintenance of lawns. Suburban railroads, the extension of electric lines into the country and the return of man to natural ways of living are all features contributing to the growing interest in matters pertaining to lawn making.

Mr. Corbett believes that a lawn should be beautiful and at the same time useful. Its beauty depends on the contour of the land, the color and texture of the grass and the uniformity of the turf. The use of the lawn is to provide a suitable setting for architectural adornment and landscape painting.

The ideal soil for grasses best suited for lawn making is one which is moist and contains a considerable percentage of clay. A strong clayey loam or a sandy loam underlaid with a clay soil is undoubtedly the nearest approach to an ideal soil for a lawn.

Since the lawn is a prominent feature it is hardly possible to make the soil for the lawn too rich. Stable manure which has been thoroughly decomposed and rotted and which is as free as possible from detrimental weed seeds is undoubtedly the best material to use in producing the desired fertility of the soil. After the lawn has been established and it has gone into winter quarters it is well to give the young grass a mulch of well decomposed stable manure which shall not be heavy enough to disfigure or mar the lawn but should be so fine and well decomposed that it will be carried beneath the surface of the grass by the rains and snows of winter leaving very little rough or unsightly matter to be raked off in the spring.

The bulletin goes on to describe varieties of grass seed adapted for various portions of the country as climatic conditions have a great influence upon the growth of lawn grass.

Building Up Soils.

Another farmer's bulletin is one on a subject of great moment to sections which have been farmed for scores of years without intelligent attention to a renewal of the plant food exacted



Warranted to give satisfaction.

GOMBAULT'S CAUSTIC BALSAM

A safe, speedy and positive cure for

Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases of Farcy, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a **HUMAN REMEDY** for Rheumatism, Sprains, Sore Throat, etc., it is invaluable. Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address: THE L. WRENCH-WILLIAMS COMPANY, Cleveland, Ohio.

Tuttle's Elixir

\$100.00 REWARD.

Cures all species of lameness, curbs, splints, contracted cords, thrush, etc., in horses. Equally good for internal use in colic, distemper, founder, pneumonia, etc. Satisfaction guaranteed or money refunded. Used and endorsed by Adams Express Company.

SOLD BY ALL DRUGGISTS. TUTTLE'S FAMILY ELIXIR Cures rheumatism, sprains, bruises, etc. Kills pain instantly. Our 100-page book, "Veterinary Experience," free.

TUTTLE'S EXTRACT CO., 104 Beverly St., Boston, Mass. Beware of so-called Elixirs—none compare but Tuttle's. Avoid all others: they offer only temporary relief if any.

GIVE YOUR HORSE

Daniels' Renovator Powders.

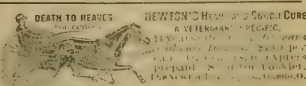
GIVE LIFE, STRENGTH, VIGOR.


Two Weeks Treatment 50cts.

Warranted to please or money back. Sold by any Druggist or Dealer, or sent by mail. Mention this paper and we will send free our 112 page Veterinary book.

DR. A. DANIELS, 72 Milk St., Boston, Mass.

The largest manufacturers of Veterinary Medicines in the world.





An Eczema Hand

should not be covered any more. A fresh antiseptic ointment every day after applying Heiskell's Ointment is all that is needed to cause the troublesome matter to fall off, or stubborn it may be.

Heiskell's Ointment

goes right to the spot. It cures the skin, stops the burning and itching, and cures. There is no case too obstinate. All skin diseases yield to its marked influence. Used successfully for half a century.

In all cases it is best to bathe the part affected with *Ross's Medicated Soap* before applying the ointment. To make the skin pure and clean use the *Best Lotion* *Ross's Blood and Liver Pills*.

Ointment two dollars; soap one dollar; Pills one dollar; sent by air express, or by mail.

JOHNSTON, HOLLOWAY & CO.,
531 Commerce St., Philadelphia, Pa.

EUREKA.

Eureka Springs, Ark., March 15, 1904.

Enclosed find 50 cts. for box of Teeterrine. I sent for box over a year ago. It took a little off my face that I feared was cancer. I send for another box. It is the only remedy I ever had that did my good.

Mrs. W. E. Penn.

Unexcused for all skin diseases. An eruption, or post-paid from the manufacturer at 50 cts. per box.

J. T. Suppacher, Eureka, Ga.

WANTED!

ALL KINDS OF

LIVE WILD BIRDS AND ANIMALS

Particularly Deer, Wild Turkeys, White Squirrels, Ducks, Swans, Bob White Quail, Grey Squirrels, Bear, Baby Raccoons, Foxes, Etc.

DR. CECIL FRENCH,
718 Twelfth St. N. W., Washington, D. C.

BAGS

FOR EVERYTHING—
NEW OR SECOND-HAND;
SOLD OR RENTED.
Write for prices.

RICHMOND BAG COMPANY, Richmond, Va.

from the soil. This is on the "Renovation of Worn Out Soils," by W. J. Spillman, Agrostologist in charge of farm management investigations. Mr. Spillman believes that the thorough solution of this problem may be found in growing green crops, feeding them to live stock and letting the fertilizing elements, either in the manure or by plowing under the crops grown for this purpose, be returned to the soil. Leguminous crops will add nitrogen to the soil while commercial fertilizers and lime may be important means of improving the soil by supplying the fertilizing requirements of different soils and different crops.

Garlicky Farm Products.

Everybody knows the rank taste and smell of garlicky butter and milk. It also appears that the presence of wild garlic in the grain fields of the central eastern states and the other sections where it is locally abundant has caused a very great loss. Farmers have been obliged to sell their garlicky wheat at greatly reduced prices, principally because foreign merchants will not buy it except at a low price, and millers, as a rule, refuse to handle it, for they have been able to grind garlicky grain only at a much increased cost. The garlic bulbs gum the rollers, necessitating the stopping of the mills and the washing of the rollers before the grinding can be resumed. The frequency with which the washing must be done, depends upon the quantity of garlic present. In extreme cases the washing must be repeated every two or three hours, the operation requiring from ten to fifteen minutes for each set of rollers.

The presence of the bulblets of wild garlic in the wheat, says a bulletin about to be issued by the Department of Agriculture, causes a loss to agriculture from this cause alone of more than \$1,500,000 annually. The wheat kernels and the smallest of the garlic bulblets are very similar in size, so that their separation by methods ordinarily in use is almost impossible so long as the two are fresh from the field. After wheat containing garlic has been artificially dried the wheat kernels increase in specific gravity and the garlic bulblets decrease in specific gravity, so that practically all of the latter may be removed by good grain machinery.

The above bulblets may be obtained by application to Representatives or Senators or Secretary Wilson will send copies to those who can not get them otherwise.

The Great Fly Plague

The contention of the Department of Agriculture that the common house fly is a carrier of disease seems to have been taken up in foreign countries.

The common house fly has its use as a scavenger, but there are far better ways of disposing of filth than waiting

"BABY CHICKS."

Those who have taken advantage of our Feeds for "Winter Eggs" in almost every instance have duplicated their orders. Is their occasion to say more?

For the youngsters we recommend and sell "Purina" and "H. O." Baby Chick feeds, well balanced and perfectly cleared products, and without doubt sound grains. No grit. Try it and convince yourself.

Protina Dairy Food with its All-India is what to feed for results.

Baum's Food. The best conditioner and digestant on the market.

Eggs from **DUSTON'S STRAIN WHITE WYANDOTTES.**

We solicit your orders and inquiries, W. J. TODD, 426 N. 6th St., Richmond, Va.

Death to Hawks

Macnair's Chicken Powder
Kills Hawks, Cures Cholera.
FREES CHICKENS OF VERMIN
... AND ...

Makes Hens Lay.

To be convinced send for a package
Price 15c or 2 for 25c; Postage 4c per Pkg.

FOR SALE ONLY BY

W. H. MACNAIR, Druggist,
Tarboro N. C.

"RARVA" MEAT MEAL

is a **MEAT BUILDER**
and **EGG PRODUCER**

Economic, Clean, Pure
Price per 100 lbs. \$3.

Write for circulars and testimonials.

RICHMOND ABATTOIR,

Valentine's Meat-Juice Co., Props.

6th and Cary Streets,
Box 267-Dp't., M. Richmond, Va.

Protina Dairy Feed.

(Alfalfa Basis)

Protein 20.0%, Fat 3.5%.

"A well high perfect feed."

Send for interesting literature—W. F. RICHARDSON, Jr. & Co., grain and feed dealers, 1015 E. Cary St., Richmond, Va., Distributors.

FOR SALE OR EXCHANGE

One Wolverine 4 Horse Sweep Power with belt, gear, jack and pulleys etc.

One Buick Motor, 5 & 4 cut.

One 2 b. p. Gas Line Engr. c. all good as new
F. E. WINKLER, Cedon, Caroline Co., Va.

U.M.C. SHOT SHELLS

Why go on a wild goose chase for Shot Shells?
U. M. C. Shells double your chances because they bring them down "just out of range." U. M. C. are the Shells for your gun.



U. M. C. cartridges are guaranteed, also standard across when U. M. C. cartridges are used as specified on labels.

THE UNION
METALLIC
CARTRIDGE
COMPANY
BRIDGEPORT,
CONN.
Agency 212 Broadway N. Y.

BUFF ORPINGTONS EXCLUSIVELY.

The World's greatest Winter layers. We breed the S. Comb Buff Orpington only, and of the best blood that we could procure in the U. S. Our birds are from imported fowls, and we have culled close and put no bird in our pens but the best specimens. We have 2 pens. Pen A is headed by 2 cocks, Sir Walter and Yellow King. Pen B is headed by 2 cockerels, Sir Chas. and Bell Boy. Eggs, \$1.50 for 15 eggs; \$2.75 per 30 from either pen. Send for circular.

Address and make all orders payable to B. O. POULTRY YARD, Rapidan, Va., R. F. D., No. 1.

-SPECIAL-

ORPINGTON PLACE (S. C. Buff Orpington Specialists), will furnish guaranteed eggs as follows. From:

Pen No. 1. Fifteen best females from a 600 flock, mated to a Cook Cockerel, imported from a Cook's English Farm "Orpington House," at \$3 for 15 eggs.

Pen No. 2. Headed by a Cook strain cock of a solid golden buff color, at \$2 for 15 eggs. Free range flock of 70 choice hens and pullets, mated to cocks valued at \$15 to \$25 each, at \$1 for 15, \$3 for 50.

We are agents for New Method Incubators and Brooders. Send us 60c. for Cook's Orpington Poultry Journal for 12 months and keep posted on Orpingtons.

FAY CRUDUP, Mgr.,
Jeffress, Mecklenburg Co., Va.

Glenview Orpingtons. Single Comb Buffs Exclusively.

Guaranteed eggs for hatching, from best matings. \$3.50 per setting; 6.00 per thirty. From utility pens, \$2.50 per setting.

EXPRESS CHARGES PREPAID.
B. S. HORNE, Kewick, Va.

EGGS FOR HATCHING.

ROSE COMB RHODE ISLAND REDS.
\$1 per sitting of 15. No other breed kept on the farm.—MRS. JOS. M. HURT, Blackstone, Va.

for flies to consume it. The fly is the enemy of the human race because he moves from putrid decay to human food without washing his feet. He flies from contagious and infectious disease and alights upon those enjoying perfect health, and he carries there the bacilli of fatal disease. He is not merely an annoyance; he is the forerunner often of wasting disability and of death.

These counts have been proved on the fly by the experiments and observations of men of science. The conclusion is that the fly as well as that other enemy of mankind, the mosquito, must go. In Paris they have been searching for a way to destroy him. Like the mosquito, the fly cannot be dealt with individually with any effect. He cannot be taxed out of existence, like the street dog. The only way to diminish the number of flies is to stop the breeding, a female fly has a capacity for infinite multiplications if she only can find a suitable place for the hatching of her eggs and the development of the larvae.

These are manure heaps, drains and cesspools. A barnyard or livery stable yard with manure exposed is a nursery of flies. How shall they be dealt with? If their breeding places can be kept hermetically closed to the approach of flies they would do no harm. This is not always practicable. The manure pits, can, however, be treated with various substances which will kill the larvae of flies. In the Paris experiments the most satisfactory result was obtained with raw petroleum or raw schist oil poured into the semi-liquid breeding place of flies forming a strata of oil and destroying all the larvae. In the case of manure heaps, the oil mixed with earth, lime and fossil phosphates is sprinkled over all sources which the flies would naturally seek and the production of flies will not then take place.

This is a valuable demonstration, and it will be utilized widely and beneficially when the disease bearing capacity of flies is as widely understood as it should be.

A report received by the Department of Commerce and Labor shows that the dairy business in Japan is growing, and a Danish firm of Copenhagen, employing 3,000 men, is busy supplying Japanese farmers with cream separators for making butter.

GUY E. MITCHELL.

BRILLIANT BOY.

FRED—"And what is Percy doing now?"

JACK—"Sprinkling gasoline on the love-letters to give the girl an impression that he owns an automobile."

Prince George County, Va.,
Jan. 24, '06.

I cannot do without the Southern Planter.
J. W. RODGERS.

INVESTIGATE THE POULTRY BUSINESS

Write for a free copy of my book describing

**Profitable
Combinations
of Egg, Broiler
and Roaster
Farms**

It gives the prices paid for eggs and poultry week by week for the past three years. It tells how and when a hatch taken off each week in the year could be most profitably marketed. It shows how you can make \$2.00 on a large winter roaster. It tells what profits can be made with each of the popular breeds, and the costs of production.

I have helped thousands to make money with poultry. My Model Incubators and Brooders are used on the money-making farms. It is my business to teach those who use them to do so profitably. Whether your needs are small or large, I will furnish without charge, estimates and plans for a complete equipment that will insure success without your spending a dollar unnecessarily. Send for my complete literature.

CHAS. A. GYPHERS
3947 Henry St. Buffalo, N. Y.

YOUR LUCKY STAR

never brought you greater success than will **STAR Incubators & Brooders**

They make poultry raising profitable, easy and certain. Sold on a guarantee that makes you safe. Free catalog tells why. Write to: KUMBLIN INCUBATOR CO., 618 Church St., Bound Brook, N. J.

BEFORE BUYING An Incubator

get our free catalogue. It will give you some money-saving points even if you do not buy of a COLUMBIA INCUBATOR CO., Box 11, Delaware City, Del.

DEATH TO LICE Lambert's "Death to Lice" kills all poultry vermin, lice on cock, ticks on sheep, fleas on dogs, and all insects on plants. You get results immediately. Sample box 10c. Sample box 60c. 100 out, by express \$1.00.

THE O. K. STOCK FOOD CO.,
451 Monon Bldg., Chicago, Ill.

S. C. BUFF ORPINGTONS, EXCLUSIVELY.

Eggs \$1.50 for 15. \$2.50 for 30. Special rates for large lots. Have a few choice cockerels and pullets, at \$2.00 each. These birds are well bred, well grown and entirely free from disease. And a bargain at prices named.

Cash orders promptly filled. (Dr.) T. C. WARE,
P. O. Box 113. Clarksville, Va.

S. C. BUFF ORPINGTON, S. L. WYANDOTTE

Eggs, 15 for \$1.00
R. and S. C. BROWN and S. C. WHITE
LEGHORN and B. P. ROCK.
Eggs 15 for 90c. 50 for \$2.50. All of the best strains.—Mrs. R. K. CASSELL, R. F. D. 3, Wytheville, Va.

SELLING OUT
We have decided to sell out all our breeders—male and female—
WHITE WYANDOTTES,
BARRED PLYMOUTH ROCKS, and
S. C. W. LEGHORNS.
Order quick.—FIEDMONT HEIGHTS FARM
Yancey Mills, Va.

Eggs for Hatching

From Best American and Imported Strains. \$2.00 per Sitting; \$10.00 per 100 of following breeds.

S. C. Buff Orpingtons

White Plymouth Rocks

and **S. C. Black Minorcas**,

S. C. White Leghorns

\$1.50 per sitting,

\$8.00 per 100.

We breed only thorough-bred poultry of standard quality, have 3000 healthy chicks hatched Feb and March. Largest practical Poultry Farm in Virginia. **FOX HALL POULTRY FARM,**

R. F. D. No. 2, Norfolk, Va.

Southern Bell Phone 22-2.

EGGS from

KING'S QUALITY

S. C. BUFF ORPINGTONS

and **M. B. TURKEYS.**

Price of Orpington eggs, \$1.00 to \$1.50 for 15. Turkey eggs, 25c. each. Can also furnish Barred Rock eggs at \$1.00 for 15.

GUARANTEED TO REACH YOU IN GOOD CONDITION AND TO BE AS REPRESENTED.

We have one **SHORTHORN BULL CALF** for sale. Write us.

QUEENLAND FARM, R. F. D. 2, Box 7, Hagan, Va.

BUFF ORPINGTONS

Exclusively. Farm range flock of 100 choice hens and pullets, mated to very fine cocks—all beautiful, solid buff. Eggs guaranteed fertile and satisfactory, \$1.00 for 15 or \$3.00 for 50. Also a very fine cock which I will sell, only to avoid inbreeding, at \$2.50, and 5 cockerels of good size, shape and color at \$1.00 and \$1.50 each. Orders receive prompt and careful attention.—G. W. HARDY, R. F. D. No. 1, Jeffers, Va.

"Money in Poultry."



Our new 1906 book tells how to make it. Tells how to treat diseases. Feed and care for poultry successfully. Illustrates and tells all about 40 varieties **FAMOUS THOROUGH-BRED FOWLS**, with Low price on stock and eggs. Send 6c. in stamps to **JOHN E. HEAT-WOLE, Box L, Harrisonburg, Va.**

S. C. B. LEHIGH EGGS, Greider strain, and **S. C. W. Leghorn**, Wyckoff strain, 15 for 75c.

MRS. J. R. BROYLES, Leray, Va.

WITH THE ADVERTISERS.

Macnair's Chicken Powder is again advertised this season by W. H. Macnair, Tarboro, N.C.

P. B. Buell, Herndon, Va., offers for sale the magnificent estate, "Chantilly."

Red Polled Cattle can be had of W. S. Southall, Elkton, Va.

Volney Osburn is offering Tamworth Swine.

Masters Planter Co. are advertising their rapid Plant Setter as usual this spring. Look up their advertisement.

The Philadelphia Silo is offered our readers again this season by E. F. Schlechter.

Fox Hall Poultry Farm is a new advertiser this month. Several popular breeds are offered.

Bosaw Chemical Co. have a very attractive announcement on another page.

Wallerstein Produce Co. have a couple of ads. in this issue to which attention is called.

The Southside Mfg. Co. is advertising its fruit, vegetable, and berry carriers freely in this number.

Dr. A. C. Daniels is offering his well known veterinary remedies in another column.

Another new-comer in the Berkshire field is Col. Henry Hollyday, Easton, Md. Look up his announcement elsewhere.

Clipper Lawn Mower Co. start the season's advertising in this issue.

Hydraulic Press Co. have an announcement on another page to which attention is invited.

The well known Brown Wagon is advertised in another column.

Mueller's Molasses Grains are advertised by S. T. Beveridge & Co.

Note the change in the Real Estate of J. F. Jerman, Fairfax, Va.

NEW FIRM.

We have pleasure in calling the attention of our readers to the announcement of W. K. Bache & Sons, to be found on another page of this issue.

Many of our readers doubtless remember the senior member of this firm, W. K. Bache, as general agent for the McCormick Harvesting Machine Company, and afterwards the International Harvester Company of America. After spending 28 years in this capacity he decided to embark in business on his own behalf. He is assisted by his sons, who will do business under the above named firm.

They will carry a full and complete line of all kinds of farm implements, harness, huggies, wagons, etc., and will also represent the Deering line of harvesting machines.

We bespeak for the new firm a liberal share of the patronage of the farmers of the South.

EGGS FOR HATCHING

B. P. Rocks, S. C. Brown Leghorns. Our birds are directly bred from 1st prize winners at N. Y., Boston, Philadelphia, American, Chicago, St. Louis and leading southern shows. Eggs from Exhibition matings \$2.00 per 15, \$10.00 per 100. Eggs from City matings \$1.15 per 15, \$6.00 per 100. Two-thirds hatch guaranteed or sitting duplicated at half price. Our business is growing, why? Because we started with the best stock money could buy and have pleased our customers. Why not let us start you right with a setting or two of eggs. Hatch your winners and for next fall show. We breed only the best and use the double mating. **STRAWBERRY HILL POULTRY YLS., Box 287 Richmond, Va.,** Breeding yds. 1 miles from City on C. & O.



ARE YOU LOOKING FOR PRIZE WINNERS IN

S. C. Rhode Island Reds,

Light Brahmas,

Barred, Buff and White

Plymouth Rocks,

S. C. White Minorcas

and **S. C. White Leghorns?**

Then order your eggs for hatching from **The Oak Grove Poultry Farm,**

Mrs. Clara Meyer, Propr.,

R. F. D. No. 2, NORFOLK, VA.

Our birds won 1st, second and special prizes at the Madison Square Shows. Price—1st, pen \$2.00, 2d, Pen \$3.00, and 3d, Pen \$3.00 for setting of 15. 1st or 2nd or 3rd \$10.00 per 100.



SINGLE COMB

Brown Leghorn

Eggs for hatching. From pure bred stock. Baltimore strain \$1.00 per sitting or 15 \$2.50 for 3 sittings, \$4.00 per 100. Prompt attention.

Address

GITCHELL BROS., R. F. D. 2, Charlottesville, Va.

S. C. Brown Leghorn

Eggs, 75 cents for 15. Book your orders now for Spring delivery. Special care given to each order. Satisfaction guaranteed. **4EHERRIN POULTRY FARM, Branchville, Va.**

The manager of the above farm is well known to me and is thoroughly reliable. **A. B. COGIN, Agt., Southern Express Co.**

30 S. C. B. LEGHORN

Eggs \$1.00 for \$3.25; B. P. ROCK eggs, 15 for \$1 or \$5 per 100. Reg. Scotch Collie, Fox Hound and Fox Terrier Puppies for Sale. Catalogue free. **J. D. STODGHILL, Shelbyville, Ky.**

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Eggs for sale. We ship nothing but fertile eggs, at a price to suit you.

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S. C. BROWN LEGHORNS, B. PLYMOUTH ROCKS, WHITE WYANDOTTES, RED CUBAN GAMES, GAME BANTAMS, MUSCOVY DUCKS, MAMMOTH B. TURKEYS. For particulars, Write to **MRS. HERBERT CAREY, Box 23, Ivy Dep., Va.**

POWHTAN POULTRY YARDS, CHANTILLY, VA.

We are offering eggs for hatching from our yards of
S. C. BROWN LEGHORNS

S. C. WHITE LEGHORNS.
BARRED PLYMOUTH ROCKS

White Wyandottes,
LIGHT BRAHMAS,

\$1.00 per 15, \$2.50 per 45 \$5.00 per 100.

We have spared neither time nor expense in the perfection of our breeds, to make them among the best that can be obtained.

Satisfaction guaranteed.
Prompt attention to orders.

J. Harrison Yates Manager.



Hollybrook Farm.

We have an extra fine lot of

Barred Plymouth Rock Cockerels

Price, first-class birds, \$1.50; cockerels \$2.00 each.

PARTRIDGE WYANDOTTE COCKERELS, from prize winning stock. Price, \$2.00 each for first-class birds; \$2.50 each for extra select birds.

All crated and delivered to express office here. Address, **HOLLYBROOK FARM**, Box 330, Richmond, Va.

Floris Will Poultry Yards.

Breeders of high class

Barred Plymouth Rocks

White Wyandottes.

S. C. White Leghorns,

S. C. Brown Leghorns,



Eggs: \$1.00 for 15; \$3.00 for 60.

M. K. Stroud and C. M. Walker, Prop,
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FLINT RIDGE POULTRY YARD

Breeder of **BARRED and WHITE PLYMOUTH ROCKS**, **S. C. RHODE ISLAND REDS**, **BUFF ORPINGTONS**, **SILVER LACED and WHITE WYANDOTTES**, **BUFF WHITE and BROWN LEGHORNS**, **CORNISH INDIAN GAMES**, **POLISH**, and **BLACK MINORCAS**.

EGGS FOR SALE.
C. E. BEAVER, Prop., Bufala, N. C.
R. F. D. 1.

STRICTLY FRESH EGGS for Hatching.

Barred Plymouth Rocks

18 years line bred; beautifully barred, large bone, bred-to-day kind. My incubators collect 83 per cent. fertile; none shipped over 3 days old. Eggs \$1.00 for 15, \$1.50 for 30, \$4.50 for 100.

MAMMOTH BRONZE TURKEYS, correct in plumage, large bone, eggs \$3 dozen. No stock for sale.—**E. F. SOMMERS, Somerset, Va.**
Phone No. 111.

BARRED

PLYMOUTH ROCK

Eggs, \$1 for sitting of 15. Splendid stock. Fine layers. **F. MAXWELL CONNER, Box 716, Richmond, Va.**

PEANUTS VS. PORK.

The South Takes a Leaf From the West's Book of Prosperity.

Notwithstanding the difference between the prices paid for wheat and corn, the latter commodity, by reason of its immense volume, yields to the country the larger gross income.

When the corn crop is unusually large and prices not unusually low, the Western farmer prospers and in turn the railroads through his territory pay dividends; manufacturers make money and the commercial conditions generally are good.

It requires only a short memory to recall the time when corn, year after year, was burned for fuel, or allowed to rot ungathered in the fields. This was when corn was fed to cattle and meal entered very little into the diet list of man. The West used some corn, so did the South, but in the East it was almost unknown, and Europeans regarded it as unfit for food.

The grit, determination and energy of the West was concentrated to conquer this condition and a united movement was engineered to instruct non-users of corn how this important food product might be utilized.

Western expositions, State fairs, and country shows had corn palaces, and representatives were sent to the Atlantic seaboard and across the ocean, exhibiting at all the great centers corn and its products. Now that cereal is never burnt unless a careless cook forgets her duty.

At the Jamestown Exposition the Southerners have determined to emulate the wisdom of their Western brethren and will erect an immense peanut palace where this esculent tuber will hold sway.

German chemists have recently proven the nutritive value of the peanut and the ration of the soldier contains sausages made of peanuts. It is very nutritious, pleasing to the taste, and contains more units of food energy than a sausage of similar size made from pork.

The peanut as ordinarily used, roasted, is undoubtedly toothsome and gently soporific. Most mild cases of insomnia yield to a late supper of peanuts. In candy it is known to many, but its use is by no means general. Peanut butter, peanut brittle, ground peanuts for sandwiches, have a certain vogue, but it is restricted.

The by-products of peanuts are many and useful, yet, year after year, peanut planters use their plants as fertilizing material, cutting them down and plowing them under to enrich the earth.

The peanut Palace of the Jamestown Exposition is intended, like the corn palaces of the west, to be not a final undertaking, but the beginning of a movement in bringing to the peanut its due mead of appreciation.

Always mention the Southern Planter when writing advertisers.

BELMONT POULTRY FARM.

BREEDER OF HIGH-CLASS

BARRED and WHITE PLYMOUTH ROCKS

and WHITE WYANDOTTES.

Eggs: \$1.50 for 15; \$2.50 for 30.

S. C. WHITE LEGHORNS, Blanchard and Wyckoff strains; Eggs from best pen \$1.50 per 15; Second, \$1 for 15. **S. C. BROWN LEGHORNS**, Whitman strain, \$1.00 for 15. Will spare a few sittings from our 240 egg strain of **S. C. Brown Leghorn**, mated to produce exhibition males, at \$2.50 for 15. Satisfaction guaranteed.—**H. G. ROBERTS, Prop. Roanoke, Va.**

TREVILIAN POULTRY YARDS

HEADQUARTERS FOR

BARRED PLYMOUTH ROCK EGGS.

\$1.00 per sitting of 15; 2 sittings \$2.75; 3 sittings \$4.00 and \$6.00 per 100.



Yards headed by some world-renowned, prize winning blood; our mantras this season should be "Breed with me of the great birds of the breed." We sell A. C. "Jawkins" strain and E. B. Thompson's "Ring-neck" noted for their massive size and as winter layers. Our stock will improve yours, and our eggs are cheap, quality considered. Cheap eggs from inferior birds mean good money squandered, so write us before buying as we are sure to please you. **C. DANNE, Jr. Prop. John Mahanes, Mgr. Trevilian, Va.**

Barred Plymouth Rocks

Bred to lay. No Birds for sale. Can fill orders promptly for eggs. Best pen \$1.00 for sitting of 15. Other pens 75c. for same or \$4.00 per hundred.

Address, **GREEN ROCK POULTRY FARM, For W. A. CHERRY, Chatham, Va.**

BARRED

PLYMOUTH ROCKS.

bred from the best layers. A few more pullets for sale. Eggs, \$1.00 per 15; \$1.75 per 30 or \$5. per 100. Satisfaction Guaranteed.

A. J. S. DIEHL, Port Republic, Va.

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A fine lot of stock for sale; 10 hens, 1 cockrel, one year old, good layers, \$1 each. **MRS. F. E. WINKLER, Cedon, Caroline Co., Va.**

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(Forsyth Strain).

Eggs for sale.

Prices right.

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We will be glad to quote you prices on stock and eggs.

F. M. PRIDGEN, Supt.,
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BARRED PLYMOUTH ROCKS.

(Exclusively.)

America's best strains. EGGS from Extra rood matings \$1.00 per 15. From prize matings \$2.00 per 15.

At the late Fredericksburg fair, I won three times as many premiums as all the rest of my competitors. Strong competition, also have won at Richmond, Va., and Charlotte, N. C.—ROBT. W. HARRIS, Fredericksburg, Va.

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Pure-bred poultry for egg machines, S. C. BROWN LEGHORNS, W. WYANDOTTES, B. PLYMOUTH ROCKS. Eggs, 13 for \$1.25; will have a limited number of Silver Spangled Hamburg and White Leghorn eggs; 13 for \$1.50. Nothing but fine stock. Address: MAXWELTON POULTRY YARDS, Maxwelton, W. Va.

BARRED

Plymouth Rocks.

BRED FOR UTILITY AND BEAUTY.

Eggs \$1.00 per 15; \$2.50 per 45.—OTTER PEAK POULTRY YARDS, G. D. Wingfield, Prop., Bedford City, Va.

Claimont Poultry Farm

Eggs—\$1.00 for 15.

BARRED PLYMOUTH ROCKS. SINGLE COMB BROWN LEGHORNS. Best blood for little money. Bright and Biltmore strains. Prompt attention. MRS. JNO. F. PAYNE, Charlottesville, University Sta. Va.

BARRED PLYMOUTH ROCK

Eggs, Hawkins, Miles, McClave and Thompson strains. Eggs from high scoring birds at \$1.00 for fifteen straight.

PEKIN DUCK EGGS, from choice birds, \$1.00 for thirteen.—LESLIE D. KLINE, Vaucluse, Va.

HEAR 'EM CRACK!

Strong, vigorous eggs hatch like pop-corn. Get eggs from my "Quality" Barred Rocks. Finest shows birds, and layers. Eggs \$2.00 and \$1.50 per 15.—L. W. WALSH, Drawer 348, Lynchburg, Va.

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In this list will be found prices on papers, magazines and periodicals which are most called for by our readers. We have club rates with nearly all reputable publications, and will quote them on request:

	Dailies.	With Alone. S. P.
Times-Dispatch, Richmond, Va.	\$5 00	\$6 00
Times-Dispatch (without Sunday)	4 00	4 00
News-Leader, Richmond, Va.	3 00	3 00
The Post, Washington, D. C.	6 00	6 00
The Sun, Baltimore, Md.	3 00	3 40
Thrice a Week.		
The World, New York.	1 00	1 25
Weeklies.		
Times-Dispatch, Richmond, Va.	1 00	1 25
Central Presbyterian, Richmond, Va.	2 00	2 25
Southern Churchman, Richmond, Va.	2 00	2 25
Harper's Weekly	4 00	4 00
Breeders' Gazette	2 00	1 50
Country Gentleman	1 50	1 75
Hoard's Dairyman	1 00	1 30
Horseman	3 00	3 00

Semi-Monthly.

Kimball's Dairy Farmer.	1 00	75
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Monthlies.

St. Century	4 00	4 25
St. Nicholas	3 00	3 25
Lippincott's	2 50	2 50
Harper's Magazine	4 00	4 00
Harper's Bazaar	1 00	1 40
Scribner's	3 00	3 25
American	1 00	1 35
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The Strand	1 00	1 35
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Argosy	1 00	1 35
Review of Reviews	3 00	3 00
Field and Stream	1 50	1 50
Women's Home Companion ..	1 00	1 25
Reliable Poultry Journal	50	75
Industrious Hen	50	70
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We cannot under any circumstances furnish sample copies of other publications.

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White P. Rocks. S. C. Brown and Buff Leghorns.

Bred from prize winning strains, and great layers.

Double your egg production by feeding "GRANULATED MILK" 45 per cent. Albumenoids. Save the little ones by feeding "BABY CHICK FOOD." Booklet fully describing these and other supplies and remedies free. J. N. COFFMANN, manager, Edinburg, Va.

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BARRED BUFF and WHITE PLYMOUTH ROCKS; SILVER, WHITE, BUFF and PARTRIDGE WYANDOTTES; BLACK MINORAS; BLACK LANGSHANS; LIGHT BRAHMAS; PARTRIDGE COCHINS; WHITE and BROWN LEGHORNS.

Price, 15 for \$15; 45 per 100; 2-3 hatch guaranteed.

A few more nice White and Brown Leghorns and some nice Cockerels of the different breeds for sale. OAKLAND POULTRY FARM, C. J. WARNER, Manager, Ruffin, N. C.

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Barred Plymouth Rocks.

Stock and Eggs for Sale.

S. C. WHITE LEGHORNS.

Nice lot of cockerels, \$1 to \$2.

MAMMOTH PEKIN DUCK

Eggs, 51 per 10. Other Eggs, 51 per 15.

The above are of the finest strains and carefully mated. You will do well to place your order now.

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BARRED ROCKS

Best strains. New blood annually. Barred to skin, fine size and bred to lay. No other bred on farm. Eggs 15 for 75c. \$1 per hundred. Securely packed and delivered at express office in Bedford City, Va.—Mrs. WM. P. BURKS, Route No. 1, Bedford City, Va.

Eggs for Sale

B. P. ROCKS, Thompson Strain, WHITE WYANDOTTES, Fishel Strain, S. C. BUFF ORPINGTONS, Cook Strain, S. C. White and Brown Leghorns. 15 Eggs for \$1. PEKIN DUCK Eggs, 12 for \$1. Indian Runner Duck Eggs, 12 for \$1.50.—JAMES M. CASSELL, Wytheville, Va.

BARRED PLYMOUTH ROCKS.

Strong healthy farm raised birds for sale at all seasons. Cockerels, 15 for \$1.50; Pullets, \$1.25. BARRED P. ROCK and PEKIN DUCK eggs, 13 for 15; 2 settings, \$1.50; and Pure MAMMOTH BROnze turkey eggs in season.—MRS. R. E. WILHOIT, Somerset, Va.

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BARRED PLYMOUTH ROCKS (Thompson strain), BUFF WYANDOTTES (Sanbon and Novene strains), MAMMOTH BRONZE TURKEYS.

Strictly fresh eggs for sale from the above 'owls. Write for prices.—MRS. R. B. FRAY, Advance Mills, Albemarle Co., Va.

White Plymouth Rocks

Eggs now ready. Great big Graves and Root males. Save years of time and trouble by starting right.

BROWN LEGHORNS

R. W. HAW, Centralia, Va.

WHITE PLYMOUTH ROCK

and PEKIN DUCK eggs for Hatching.

F. S. KILGOUR,

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WHITE Plymouth Rocks Wyandottes S. C. Buff Leghorns AND Pekin Ducks.

If you want quality, give me your orders for Eggs for hatching, and I will guarantee satisfaction. My stock is second to none and bred for UTILITY as well as for SHOW. EGGS: \$1.50 for 15; \$2.50 for 30; Pekin Duck Eggs, \$1 for 9.
SOME CHOICE COKERELS FOR SALE AT BARGAIN PRICES. W. O. RONDA-BUSH, Uno, Va.



EGGS FOR HATCHING
S. C. W. and BROWN LEGHORNS, BARRED PLYMOUTH ROCKS, R. and S. C. RHODE ISLAND REDS and WHITE WYANDOTTES at \$1 per 15; \$1.75 per 30; \$2.75 per 50; \$5 per 100. Valley View Poultry Yards, J. D. GLICK, Prop., R. F. D. 19, Dayton, Va.

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can sell eggs from pure-bred WHITE HOLLAND TURKEYS and WILD MALLARD DUCKS at \$2.50 for 12; MAMMOTH PEKIN DUCKS, \$1 for 12; WHITE GUINAEAS, WHITE WYANDOTTES and S. C. WHITE LEGHORNS, \$1.00 for 15.



SINGLE COMB WHITE LEGHORNS exclusively.

LARGE AND PURE WHITE Eggs, \$1. per 15 carefully packed.

W. D. SYDNOR,
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Exclusively. The two breeds that fill the egg basket. Eggs, 75c and \$1 per sitting. Satisfaction Guaranteed.

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M. B. TURKEY.....\$3 per 12
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BARRED PLYMOUTH ROCK.....\$1 per 15
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SINGLE COMB

White Leghorns

Exclusively: strong, healthy, vigorous, farm-raised stock. BIRDS FOR SALE at low prices. Eggs from this grand strain of winter layers, \$1 per 15; \$5 per 100; guaranteed 100% fertile. Cockerels, \$1.25; yearling hens and pullets, \$1.
J. A. ELLETT, Beaver Dam, Va.

HINTS BY MAY MANTON.

To Be Made With or Without Epaulettes Extensions.

The suspender dress is a well deserved and apparently permanent favorite for the younger girls, and is exceedingly charming in all its variations. This one is made of a pretty checked veiling, blue and white in color, and is finished with a piping of plain blue, while the guimpe is of white lawn, but the model will be found a very desirable one for washable fabrics, as well as for those of wool, and there are a great many lovely chambrays, linens, and other



5281 Girl's Suspender Dress with Guimpe, 6 to 12 Years.

materials from which to choose. Checks promise to have great vogue and are very charming in these cotton fabrics, but plain colors is always correct. When liked the epaulette extensions can be cut off, leaving the straps plain, as shown in the back view.

The dress consist of the dress, the guimpe and the suspenders. The guimpe is simply made, with front and backs and is tucked to form a yoke, while the sleeves are in bishop style. The skirt is cut in five gores and is laid in backward turning plaits that meet at the center back. The suspenders are made in two portions each, and are buttoned onto the belt, the portions being joined one to the other by means of buttons, which also serve as an ornamental purpose.

The quantity of material required for the medium size (10 years) is 3 3/4 yards 27, 3 1/4 yards 36 or 2 1/2 yards 44 inches wide with 5 3/4 yards of barding and 2 yards 36 inches wide for the guimpe.

Eggs! S. C. B. Leghorn Eggs! GOOD ONES.

\$1.00 for 15. \$6.00 per 100.
\$50.00 per 1000.

Ship Eggs day order is received.

By Express Anywhere.

Newly hatched chicks, \$3.00 for 50; \$15.00 per 100.

By Express not over 200 miles. No Turkey eggs this month.

Send Check, P. O. Order, Ex. Money Order or registered letter.

CAL HUSSELMAN, Roxbury, Va. R. F. D. 1.

S. C. & R. C. BROWN LEGHORN

EGGS, \$1.00 per 20. Laying hens 75c. each: R. I. RED day old chicks, ready 11th of April, 15c. each; 2 year old Scotch Collie, female, pedigreed 94 generations; also a 3 month old Setter pup for sale cheap.

S. C. W. Leghorn Cockerels, Wyckoff strains, extra fine \$1.00

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If you have laying strains or R. or S. C. BROWN and BUFF LEGHORNS, BARRED and BUFF ROCKS, R. I. REDS, WHITE WYANDOTTES, MINORCAS.

15 eggs \$1. My stock has been bred to lay and win; and it does it. Illustrated catalogue, 21 leading varieties, free.

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SINGLE COMB BUFF ORPINGTONS, R. & SINGLE COMB RHODE ISLAND REDS, SILVER LACED, PARTRIDGE, COLUMBIAN and WHITE WYANDOTTES. Some Buff Orpington Pullets for Sale.—G. H. SHOOK. R. F. D. 1, Bufola, N. C.

EGGS-ARTICHOKES.

Eggs from S. C. BUFF ORPINGTONS. Solid golden buff birds, no culls. Finest males, heading choice farm range flock. Fertile eggs @ \$1.00 per 15; \$3.00 per 50.

CHOICE JERUSALEM ARTICHOKES, 75c. bu. f. o. b.—N. B. CRUPP, Jeffers, Va. R. F. D. No. 1.

EGGS! PIGS! CALF!

B. P. R. Eggs, from most fashionable strains, \$1.25 per 13.

Duroc Jersey Pigs from best blood lines. \$7.50 each.

Jersey bull calf, 6 months old, for sale, or trade for hoffer.

THE CEDARS FARM, Midlothian, Va.

"AMERICAN BEAUTY" STRAIN

Barred Plymouth Rocks.

Farm raised stock. Eggs of highest fertility, at right prices. You can't buy any better anywhere.—PARKIN SCOTT, Ashland, Va

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PERFECTION IN POULTRY!

Majestic and Beautiful! Wonderful egg producers all the year. Non-sitters. Why waste feed on scrub stock?

Our stock from best blood in America, first prize winners Madison Square Garden (1893). Orders booked now. Eggs, best pens. \$2.00 per 15.—V. H. COUNCILL, Warrenton, Va.

WHITE Wyandottes

EXCLUSIVELY.

I am prepared to furnish Eggs for hatching in large or small lots, from vigorous farm-raised stock, produced from standard strains.

INCUBATOR EGGS ON SHORT NOTICE.

G. F. POINDEXTER, Greenlee, Rockbridge Co., Va.

SILVER LACED WYANDOTTES, EXCLUSIVELY.



I have bred and shipped leading varieties of pure-bred fowls since 1840; keep OW S. L. Wyandottes only. — There's a reason! NONE BUTTER. Eggs fresh fertile, from selected standard-bred stock. 13 for \$1.25; 30 for \$2.00; 100 for \$6.00. Safe arrival and satisfaction.

S. P. YODER,
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Poplar Hill Poultry Farm
SILVER LACED
WYANDOTTES

EXCLUSIVELY.
Fresh eggs for hatching from high scoring birds \$1 per 15 \$5 per 100

Satisfaction guaranteed to every customer.

Dr. H. H. LEE, Prop., R. F. D. 4 LEXINGTON, VA.

Golden Wyandottes

EXCLUSIVELY.

Eggs for sale from the GRAND STRAIN OF WINTER LAYERS at \$1.00 per sitting of 15; \$1.75 per 30 or \$5 per 100. Satisfaction Guaranteed. No stock for sale.

Miss KATIE THOMPSON, Naverlet, Va.

WHITE WYANDOTTES

EXCLUSIVELY

From pure bred Duston strain.

EGGS, \$1.50 FOR 15.

No better to be had at any price. 27 spring cockerels for sale at reasonable prices. Write for prices.—ELLERSON POULTRY FARM, J. W. Quarles, Prop., Ellersson, Va.

EGGS FOR HATCHING

FROM

SILVER LACED WYANDOTTES.

It is not the PRICE but the QUALITY that is high. Carefully selected eggs \$1.50 for 15. EDGECOMBE FARM, R. F. D. No. 1.

Petersburg, Va.

HIGH-CLASS

BUFF WYANDOTTES.

EGGS FOR HATCHING.

\$1 per 15; \$2.75 per 50; \$5 per 100. All eggs guaranteed fresh and true to name.

A few fine Cockerels at \$2 each

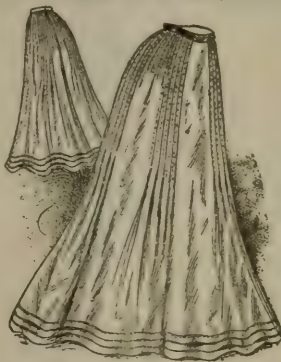
Muddy Creek Poultry Farm.
W. M. HEATWOLE, Hinten, Va.



The pattern 5291 is cut in sizes for girls of 6, 8, 10, and 12 years of age.

To Be Made in Round or Walking Length.

The full skirt, tucked in a variety of ways, not alone continues a favorite but promises to be one for many months to come. Illustrated is one of the best and most attractive of the new models that is adapted to all the lighter weight seasonable materials. In the illustration it is made of dove gray pongee stitched with heling silk and is trimmed with bias folds of the material applied over the lower edge, but it would be equally charming in voile, in henrietta and in eolienne and all the many similar materials and also in messaline, foulard, chiffon, taffeta and the like. Again, the trimming can be varied to suit individual taste and needs. While the applied bands are much liked this season, there are a great many bandings which are correct, and again little frills or ruchings of the material can be used, what is



5293 Seven Gored Tucked Skirt.
22 to 30 waist.

best depending altogether upon the material and the uses to which the skirt is to be put. A bit later lawn, batiste, and the like will be charming so made, and these are always pretty trimmed with lace or with little gathered frills.

The skirt is made in seven gores, the front one being plain, and is laid in tucks which form groups, each alternate one extending over the hips only. The fullness at the back is laid in inverted plaits. When liked the skirt can be cut off in walking length.

The quantity of material required for the medium size (without folds) is 10 yards 27, 9 1-2 yards 36 or 5 1-4 yards 44 inches wide.

The pattern 5293 is cut in sizes for a 22, 24, 26, 28, and 30 inch waist measure.

We can supply these patterns at 10 cents each.

SOUTHERN PLANTER,
Richmond, Va.

Rhode Island Reds

EGGS

From Pen No. 1, \$2.50 for 15.

\$1.50 per Pen No. 2. First-class utility fowls \$1.50 for 15.

BUFF LEGHORNS

\$1.50 for 15.

Jersey Bull Calves,

6 weeks old, unregistered, from extra fine cows, \$10.00.

Registered, 6 weeks old, \$20.00.

Registered, 1 year old, \$35.00.

A. R. VENABLE, Jr., Farmville, Va.

ROSE AND S. C.

RHODE ISLAND REDS.

J. C. Brown and White Leghorns, White Wyandottes, and Barred Plymouth Rocks

Eggs \$1.00 per 15; \$1.75 per 30;

\$2.75 per 50; \$5.00 per 100. RIVER-

SIDE POULTRY FARM.

J. B. COFFMAN & SONS, Prop'rs.
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R. I. RED EGGS

1 sitting \$2; 2 or more \$1.50 each. One 200-egg incubator and 50 chick brooder used 3 times.—JNO. W. MORRIS, Waldrop, Va.

EGGS FOR HATCHING.

WHITE WYANDOTTES

(Duston Strain)

Bred for size and beauty. \$1 per sitting of 15

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FALL CREEK POULTRY FARM.

EGGS FOR HATCHING.

Pure-bred WHITE WYANDOTTES \$1.50 per sitting of 15 eggs. Bred to Lay.

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EGGS—ORDER—HERE.

Mammoth Bronze turkey (famous National strain), from fine heavy breeders, headed by 45-lb. tom. Barred Plymouth Rock and White Wyandotte eggs (Hawkins and Landon), \$1.00 for 15. Pullets, cockerels, toms.—LANDOR POULTRY YARDS, Croxton, Va.

BLUE RINGLET

BARRED ROCKS

are bred specially for laying and beauty of shape and color.

If you want the best, give us a trial order, and if you are not satisfied you can have your money back.

Eggs that hatch, 15 for \$1.00 or \$5.00 per 100; choice cockerels, \$1.50 to \$3.50 each.

STAR POULTRY YARDS,
321 Stockton St., Manchester, Va.

EGGS FOR . . .

. . . HATCHING

Pure-bred GOLDEN, BUFF and BARRED PLTYMOUTH ROCKS. Bred to lay; \$1 for 15.

DIAMOND POULTRY FARM, King, N. C.

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BLACK LANDSHANS

THE IDEAL GENERAL PURPOSE FOWL.



Healthiest, hardiest and handiest of all breeds. Unexcelled as egg producers.—Unsurpassed as a table fowl.

Do you raise them? If not why not begin this year with one or more settings of eggs from large, vigorous birds—an egg laying strain—true Langshans type.

Eggs \$1.50 per 15; \$2.75 per 30. A. M. BLACK, Tazewell, Va.

Single Comb White Leghorns

Wyckoff strain of celebrated layers. Eggs \$1.00 for 15. BARRED PLYMOUTH ROCKS Parent stock from Biltmore, Eggs \$1.00 for 15.—COTTON VALLEY FARM, Tarboro, N. C.

EGGS FOR SALE.

I am now booking orders for eggs from choice pens of ROSE COMB WHITE WYANDOTTES, S. C. R. I. REDS and S. C. BUFF ORPINGTONS. Write me for prices. Satisfaction guaranteed. Address, FOREST PARK FARM, Charles W. Smith, Prop., Williamsburg, Va. Box 38.

BERGER'S

BARRED PLYMOUTH ROCKS

bred for utility and beauty. Eggs from selected matings, \$1.50 for 15; \$2.75 for 30; \$4 for 45; Eggs from utility mating \$1 for 15; 15 for 100. Your patronage solicited.—A. F. BERGER & SON, R. F. D. 3, Richmond, Va.

EGGS FOR HATCHING

From pure-bred BARRED PLYMOUTH ROCKS and PEKIN DUCKS. Satisfaction Guaranteed.—CHARLIE BROWN, Route 1, Cartersville, Va.

BLACK MINORCAS.

Eggs for sitting in season, from the best strains of Black Minorcas, at \$1.00 for 15 and \$5.00 per 100 eggs.—A. C. THROCKMORTON, Rapidan, Va. R. F. D. 1.

The Hens that lay,
Are the ones that pay.

S. C. Black Minorcas

exclusively. Eggs from first-class stock, \$1.00 for 12; \$2.50 for 39.—J. S. WORSHAM, Lynchburg, Va.

S. C. BLACK MINORCAS

exclusively. Pens headed by Northup and Duxan cockerels, sired by Rochester winners. Eggs 15 \$1.00 30 \$1.75; 45 \$2.25. Edgar Kline, Middletown, Va.

ONE DOZEN

S. C. WHITE LEGHORN

Cockerels from Nebraska's best prize winning stock. Very fine at \$1 each while they last. G. K. HUNDLEY, Gorman, N. C.

WHITE WYANDOTTES.

15 large, beautiful, laying pullets, 30 \$1. each. Fine to raise from GEO. M. TURNER, Louisa, Va.

EGGS! EGGS! EGGS!

From well-mated, well-marked, pure-bred BARRED PLYMOUTH ROCKS.

Satisfaction Guaranteed.

15 Eggs, \$1.00; 30, \$1.50; 45, \$2.50. JNO. M. BERTMAN, Churchland, Va.

INQUIRERS' COLUMN. CONTINUED FROM PAGE 321.

GRASS FOR PASTURE.

"We have a piece of" rough land, cleared three years ago, which we would like to seed to some good grass which will make a heavy sod and permanent pasture. Land before being cleared had a heavy growth of pine and oak timber. Land is mostly clay, situated near top of hill and rather thirsty. Do you think orchard grass would suit, and can you sow orchard grass with wheat or oats? How early in the spring should orchard grass be sown, and how much to the acre?"

SUBSCRIBER.

Botetourt Co., Va.

For a pasture on this land in your section we would sow a mixture of grasses rather than only one variety. Whilst orchard grass is probably the best single pasture grass grown, and would likely make a good growth on this land if it is rich enough to grow grass at all, yet the habit of orchard grass is to grow in bunches, and therefore other grasses should be mixed with it in order to make a full bottomed pasture and to lengthen out the grazing period. We would mix with the orchard grass some meadow oat grass, meadow fescue and Kentucky Blue, which should grow on your hills. Plow and work the land fine, and it not rich apply 400 pounds of bone meal to the acre and then seed the mixed grass seed at the rate of three bushels to the acre. Sow no grain with it and get in as soon as possible. After the grass has commenced to grow freely give a topdressing of 100 pounds of nitrate of soda per acre and keep off all stock until a good sod has been established.—Ed.

CORN GROWING—CLOVER AND PEAS.

I will thank you kindly for any information in your next issue on the following subjects:

The field I intend to put in corn has a soil from four to six inches, then it has a very hard red clay subsoil. Would it help the present crop to sub-soil it, and if so, how deep should the subsoil plow go? My farm is divided in three fields; the rest is in standing pasture. It is impossible for me to raise red clover, as I have failed time and again. I get a good stand, but it dies as soon as the sun comes hot, the first spring or summer. German clover does well for me. Now, can I sow German clover at last working of corn, turn that under the following spring, sow peas and cut for hay. In the fall sow wheat with good application of guano, and so on? With this rotation will the farm improve or go back?

Of late much has been said about the cowpea in this section. Some say

PIT GAMES.

BLACK DEVILS, RED CUBANS, and My Celebrated RED HORSES. Trios of young birds, \$4.50 to \$5.00. Eggs, \$2.00 per sitting of 15, two sittings for \$3.50.—THOS. W. JARMAN, Yancey Mills, Va.

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BRONZE TURKEYS

from prize winning strains. SILVER LACED WYANDOTTE and BARRED PLYMOUTH ROCK Fowls. ENGLISH BERKSHIRE pigs. Just weaned. Reasonable prices and satisfaction guaranteed.—J. G. BUFORD, R. F. D. No. 2, Dublin, Va.

EGGS

from WHITE HOLLAND TURKEYS, \$2.00 per doz; \$15.00 per 100.

S. C. WHITE LEGHORNS, \$1.00 per 15 \$3.00 per 100.

WHITE PLYMOUTH ROCKS, 75c. per 15. \$4.00 per 100.—G. W. MOSS, Guineys, Va.

PEKIN DUCK EGGS

for sale at 10 cents each. Rankin strain direct; no shipment less than a sitting.

M. L. WEST, R. F. D. 5, Richmond, Va.

M. B. TURKEY, B. P. ROCK and M. P.

DUCK eggs. Also, S. C. B Leghorn hens. W. B. GATES, Ettricks, Va. R. F. D. 1.

PURE-BRED SWINE AND POULTRY

Cherry Red TAMWORTH, POLAND CHINA and BERKSHIRE Sows, Shotes, and Pigs for Sale.

ROSE COMB BROWN LEGHORN and WHITE PLYMOUTH ROCK, Cocks, Cockerels and Eggs for Sale.

All Stock Registered and guaranteed to be of the very best and purest breeds.

Address or visit the PARK VIEW STOCK FARM. R. B. Yowell, Propr., Culpeper, Va.

25 HIGH GRADE

Angora Bucks

for sale cheap; also 20 bus. Soja Beans @ 55c. bu.—JEREMY IMPROVEMENT CO., Saxe, Va.

POSITION WANTED

as farm manager. First class experience in farming, dealing with cattle, sheep, swine and poultry; also gardening, flowers, fruits and vegetables.

R. S. care Southern Planter.

Cottage Valley Offerings

A beautiful cream colored mare 15½ hands high, weight about 1,000 lbs. rides well, nice gentle driver, perfectly reliable in all harness. Compactly built and easy to keep. Will sell cheap. She is six year's old and a nice ladies' driver.

Several 15-15 GRADE ANGUS Bull Calves ready for service—will make fine bulls for grading up a herd.

A fine lot of thoroughbred O. I. C. pigs, both sexes, at reasonable price in all harness.

BULL CALVES out of Shortborn Cows, by Angus Bull.

Several registered Angus bull and better calves.

S. L. Wyandotte Eggs, \$1 for 15.

W. M. WATKINS & SON Prop's, Saxe, Va.

It Pays to Breed Only to the Best.

1906 IN THE STUD 1906
The Magnificently Breeding Stallion.

Red Court 38712.

Rich Red Bay, 15.3 hands, weight 1175 lbs., foaled 1902. Hind ankles white, star in forehead. Individually, a horse of grand finish, plenty of substance, fine disposition and level headed at all times. Two-year-old trial 2:20; last half 1:11, and goes without weight or boots. Sired by "Red Chute" 2895—1st dam Lemmie by the great "Jay Bird," 2nd dam, "Katla Belle," by Bow Bells, he by Electioneer, out of "Beautiful Bells." The greatest brood mare of her century. 3rd dam, "Fairwater," by "Lord Russell," full brother of "Maud S," etc.

His sire "Red Chute" is the sire of 7; 4 being Futurity money winners, (the only stallion with this distinction), and the sire of Oxford Boy, Winner Kentucky Futurity 1901, at 3 years, taking record of 2:20.

Red Court has the world's most famous producing and winning blood close up, has 7 producing dams, and in the first 4 generations of his breeding there is not a sire or dam that is not a winner or producer.

I bought this horse of his breeder, Mr. W. W. Bettell, Lexington, Kentucky, intending to race him, with the view of giving him a fast record before offering him in the stud. I have since concluded to offer him to the public first, for the season of 1906, and send him down the circuit in 1907. Barring accidents 2:10 will never slip this fellow and I want him to have some colts coming on as he will not be bred while in training. He was bred to 4 mares last fall, all of which are in foal, and as he is a young horse his book will be limited. Send for cut and tabulated pedigree of "Red Court" and it will carry its own argument of conviction that in producing and performing blood lines this horse is equalled by few and surpassed by none. For terms, address: W. W. COLLINS, Houston, Va. care Bank of H'fax.

HORSES FOR SALE

GRAY NORMAN gelding, foaled May, 1902, weight 1200 lbs.

BAY GELDING, foaled May, 1902, by Iron Court, Vol Vii, American Stud book, weight 1070, height 15.3.

GRAY MARE, foaled April, 1903, by Aureus by Rolus out of Sample.

IRISH SETTER, born 1902, Sire Judge Plunkett, dam Redstone Lass.

For prices and information, apply to E. H. STORM'S, Mechum's River, Va.

A NICE LOT

FARM BROOD MARES

for sale ranging in weight from 1,100 to 1,800 each; age from 6 to 8; some nice Driving Mares, from 1,000 to 1,200 pounds; two pair of good Heavy Geldings, quick and active; one Seal Court Saddle Horse, one 3-year-old Seal Mare, drives nicely. All of these horses are well formed and good workers. A pair extra nice, blocky Bay Mares, for farm or carriage team, 6 and 7 years old. W. M. Watkins & Sons, Saxe, Va.

PURE BRED

PERCHERON STALLIONS

for sale at reasonable prices; as good as can be found anywhere; especially desirable for our Southern States as they are acclimated; no risk of disease by purchaser. D. T. MARTIN, Salem, Va.

Registered

PERCHERON STALLION.

SULTAN #6466 for sale; will be 3 years old April next, weighs over 1,500 lbs. black in color sound fine form and style, and of P. B. All. Will sell for quiet sale. Address, P. A. ALBERT, Roanoke, Va., R. F. D. No. 4.

they improve the land, others say they kill it. Would like to hear from you.

F. E. OMOHUNDRO.

Westmoreland Co. Va.

In this issue you will find our advice as to corn growing. Read this carefully. We have no doubt but that sub-solling will help your crop. Your land needs lime to make it hold the clover stand. It is acid. However, the German clover will help you almost as much as the red and do it in much less time as it only takes half the time to make a crop, and this time is the winter and early spring, when the red will make but little growth. The rotation you suggest is practiced by many of our subscribers and they report good results, but we have always warned these men that unless they will use some acid phosphate or ground South Carolina rock untreated with acid to keep up the supply of phosphoric acid in the soil, and some lime to make the potash in the soil available, the available supply of these mineral fertilizers must necessarily in time become exhausted and the crops fail. Both peas and clover are large consumers of these minerals and their ability to get the nitrogen from the air and store it in the soil largely depends upon the available amount of phosphoric acid and potash in the soil.—Ed.

LIME—CARBONATE AND SULPHATE.

Will you kindly answer the following questions through the columns of your paper:

1. What are the relative merits of carbonate and sulphate of lime?
2. What would be the practical value of sulphate of lime on leguminous crops on the clay lands of this section?
3. Will the results of ground limestone in small quantities, such as 500 pounds to the acre, justify its cost at \$7 per ton? If so, does it benefit the immediate crop only, or has it any permanent value to the land?
4. With what plow on the market at present, can land be plowed 12 inches deep, H. C. GROOME.

Fauquier Co., Va.

1, 2 & 3. We have so frequently and fully written on the value of lime for our Southern lands, meaning thereby carbonate of lime, that we do not think it necessary to say more on this subject in replying to this enquiry. We have had scores of letters from subscribers testifying to the good results they have obtained from following our advice to use lime on their lands. Experiments made in using sulphate of lime (plaster) have in almost all cases proved failures in the South. Sulphate of lime never acts with success except on land in which there is an abundance of available potash. It is not effectual in releasing potash in land when it is in unavailable form. We would not advise you to try it on

KENTUCKY JACKS and STALLIONS.

100 head Jacks, Jennets, Saddle and Trotting stallions. We won more premiums on our Jacks at the Kentucky State Fair 1906, than all other breeders combined. Our saddle stallions are sired by 7 of the greatest saddle stallions in Kentucky. Come to see us we can please you. J. F. COOK, & Co., Lexington, Ky. Branch Barn, Marion, Kansas.



7 of the greatest saddle stallions in Kentucky. Come to see us we can please you. J. F. COOK, & Co., Lexington, Ky. Branch Barn, Marion, Kansas.

JACK (STUD) ALEXANDER.

Highly bred registered Kentucky black JACK with white points; 15.3 hands; broad flat bone; ideal conformation; good saddle; big well-formed feet. Mules cost less to raise and sell higher than horses. Why not breed to the best Jack in Va., and make money?

Pedigree and terms from CLARENCE PETTIT, Elko, Henrico Co., Va. (Old Pollard Farm.)

I MAKE A SPECIALTY

of breeding and selling fine well-bred

Young Jack Stock.

50 head now on hand and for sale by

I. S. TEVIS,

P. O. Shelby City, Ky. Shipping point Junction City, Ky.

KENTUCKY JACK FARM.

A fine lot of big black well-bred KENTUCKY JACKS, also IMPORTED SPANISH JACKS selected by me personally from the best breed of Jacks in Spain. We furnish a certificate of pedigree with each Imported Jack. Come and see me or write for prices. I can please you. JOE E. WRIGHT, Junction City, Ky.



JACKS, JENNETS and STALLIONS.

Fine JACKS A Specialty. 3 to 5 years old past; write for what you want. Send 2c stamp for Catalogue.

W. E. KNIGHT & CO.

Nashville Tenn. R. F. D. 5.



GALLOWAYS.

All readers of this paper who are interested in this breed of cattle are invited to write me. N. S. Hopkins, Gloucester, Va.

Make Your Idle Money Earn You Interest

Write the FIRST NATIONAL BANK of RICHMOND, VIRGINIA for information concerning its certificate of deposit, so arranged that one per cent. may be collected every FOUR MONTHS through your nearest bank or store.

Our experience proves this form for savings to be the most satisfactory plan yet devised for deposits of \$100.00 or more.

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A FINE LOT OF LAMBS

FOR SALE

Registered Dorsets

Both Sexes, also some high grade Dorset Ram Lambs and some grade breeding Ewes from two to four years old. Will deliver in May or June.

J. H. FRASER, Bloomfield Stock Farm
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FRUIT AND STOCK FARM

PURE BRED SHROPSHIRE LAMBS

For breeding purposes, also half-bred

DORSET LAMBS.

Four finely bred

HUNTER FOALS,

Yearling; Extra fine

SHORTHORN BULL CALF

dropped Feb. 20th at \$25.

E. C. BROWNING, R. F. D. 1.

Evington, Va.



Edgewood Stock Farm.

DORSETS.

Ram lambs for June shipment. If you are in the lamb business you need one.

J. D. A. Buckle and Sons,
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Maxwellton, W. Va.

DORSET SHEEP

We purchased at the World's Fair, at St. Louis, a ram that was second at this show. We now have some of his lambs, and they are the best that we ever raised, as good as we ever saw. There are flock headers among them that would please the most exacting.—J. E. WING & BROS.,
Mechanicsburg, O.

WANTED:

GOATS AND SHEEP.

The undersigned wishes to purchase good common goats and sheep. Replies should state character of stock offered and lowest cash price.

WM. B. ALLWOOD,
Charlottesville, Va.

PERCHERON STALLION

MARMION, 43601, 3 years old April (Brilliant Strain), black with star in forehead, sound, strong clean flat bone, good disposition, and action and will mature at 1700 or 1800 lbs.

POLAND CHINA PIGS 10 to 12 weeks old, eligible to register. Teumseh, 2nd and 10th Sunshine 2nd strains. Eggs from highly bred Barred P. Rocks 15 for \$1.00; 30 for \$1.50. THOS. R. SMITH, Lincoln, Loudoun Co., Va.

Mention The Southern Planter.

your clay lands. Use the carbonate and you will get good results. The use of ground limestone is really yet only in the experimental stage. We have seen reports of good results obtained on some lands, and see no reason why, if it can be got in a very finely ground condition, it should not be an effectual means of supplying lime to the soil, but we expect that it will prove slower in action than slack-ed burnt lime.

4. The Disc plow will turn a furrow 12 inches deep if the team be strong enough.—Ed.

CORN—TOBACCO—CLOVER.

1. I have a lot, about 15 acres. Most of it was in peas last year. I want to work it in corn and follow with wheat. This land is chocolate mostly, will bring about five bbl. per acre. What must I use on this land, and what quantity, to increase the yield and also to improve it for wheat?

2. I have a lot, about 8 acres, adjoining the 15 acre lot, which I want to work in tobacco. This is chocolate also. I expect to put near a hundred loads of manure on it. I also turned a heavy coat of weeds under. Will a coat of lime help; if so, how much and what kind—agricultural, builders or prepared? The prepared will cost me \$12 per ton. Also, what kind of fertilizer.

3. My land won't grow clover. It will come up, but dies out during the year except when I use stable manure. What is the trouble? Will using lime help? Tell me something about lime—the prepared and other kind.

G.

1. In this issue you will find our views on the preparation and fertilization of land for the corn crop. Read this article and follow the advice and you should make a corn crop on the land you describe. When preparing the land for wheat after the plowing put on one ton of lime to the acre, using the lime fresh from the kiln, either stone or shell, whichever is most convenient. Set on the field in half-bushel heaps and then slake with half a pail of water to each heap and spread at once, and then harrow in. Drill the wheat in about a week or ten days afterwards and apply with the drill 200 or 400 pounds to the acre of bone or bone and acid phosphate fertilizer mixed.

2. You will in this issue find our advice as to fertilizer for the tobacco crop. As you are applying a good covering of farm-yard manure you will not need to use so much of the fertilizer per acre as we there suggest. Apply half the quantity we name. Don't apply lime to land to be put in tobacco. It tends to make a coarse type.

3. Your land needs lime to sweeten it to make it produce clover. Apply up to one ton to the acre of freshly burnt lime.—Ed.

College of Agriculture

... AND ...

Experiment Station,

BLACKSBURG, VIRGI

BEEF CATTLE

We can offer some choice bull calves of Angus and Shorthorn breeds for spring delivery. These are especially good individuals, and of good breeding.

DAIRY CATTLE

Bull calves of Holstein and Guernsey breeds for sale for immediate delivery. We can furnish yearly records for the dams of these calves, both of milk and butter. Prices reasonable, considering the breeding of the calves.

BERKSHIRE PIGS

A few Berkshire pigs of both sexes, for immediate delivery.
For prices and other information, apply to
JOHN R. FAIN, Agriculturist.

GROVE FARM

R. F. D. Cockeysville, Md.

First Prize Herd

Guernseys

at Timonium and Hagerstown, Maryland. (only place HERD Shown).

BULLS ONLY FOR SALE

OUR BERKSHIRES.

were unbeaten at Timonium (Baltimore County), York Pa., and Hagerstown, Maryland, the only places shown in 1905. PIGS OF BOTH SEXES for sale.

C. & Telephone and Telegraph, 431
Lutherville, Md.

JAS. McK. MERRYMAN.

AYRSHIRE BULLS.

We will sell 3 registered AYRSHIRE BULL CALF, at shipping age, for \$25 to parties in Virginia, Maryland or D. C. who have herds of grade Dairy Cows. The Ayrshire cross on grade Jersey, Shorthorn or local stock, greatly increases milk production.

8 calves, ranging in age from 18 down to 1 month, now ready; will deliver according to age as orders come in. Better order soon and get advantage of age.—MEL-ROSE FARM, Casanova, Va.

REGISTERED

Holstein-Friesian

Cattle; best butter producing strains; pure-bred JERSEY CATTLE, CHESTER WHITE, BERKSHIRE, JERSEY RED HOGS, and all the LEADING BREEDS OF SHEEP, also DUCKS, POULTRY and TURKEYS.

Write for my prices.

W. R. SELECK, Huntington Harbor, L. I.

RED POLLED CATTLE

AS GOOD AS THE BEST.

Heifer due to calve in July.

Heifer calf 7 mos. old.

Bull calf 6 mos. old.

All registered or subject thereto.

There are none better bred or better formed and make.—
W. S. SOUTHALL,
Elkton, Va.

Swift Creek Stock and Dairy Farm

Has for sale a large number of nice young registered A. J. C. C.

**JERSEY BULLS
And HEIFERS.**

None better bred in the South. Combining closely the most noted and up-to-date blood in America. Bulls 4 to 6 months old, \$75. Heifers, same age, \$35. **POLAND CHINA PIGS**, \$5 each. Send check and get what you want.

T. P. BRASWELL, Prop., Battleboro, N. C.

THOROUGHBRED**Berkshire Boars,
Jersey Bull Calves,
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Sire of Calves, **FLYING FOX** 65456, son of Flying Fox who sold for \$7,500 at the Cooper sale 1902.

All stock in best of condition and guaranteed as represented.

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DEVON HERD, HAMPSHIRE DOWN FLOCK
ESTABLISHED 1891. ESTABLISHED 1890.

**DEVON CATTLE
BULLS and HEIFERS,
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RAMS and EWES.**

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Registered young cattle of BEST strains for sale at Farmers' prices. Will sell very cheap, several young bulls of fine individuality and best breeding. Also high grades of both sexes at beef prices.—WM. C. STUBBS, Valley Front Farm, Sassafras, Gloucester Co., Va.

REGISTERED**Hereford Bull**

for sale or exchange. For particulars, apply to W. J. McCANDLESS, Brandy Station, Va.

ELLERSLIE FARM—**Thoroughbred Horses
AND SHORTHORN CATTLE,
Pure Southdown Sheep
and Berkshire Pigs.**

FOR SALE, R. J. HANCOCK & SON,
CHARLOTTENVILLE, VA.

Springwood Short Horns.

Red and white Bull Calves 6 to 9 mos. old. Also a STALLION COLT 18 mos. old weighs over 1100 lbs. Sired by "Herman" the German Coach Stallion, weighing 1500 lbs. I will sell this colt, also his sire. A FEW **POLAND CHINA BOAR** Pigs. The above at Bargain prices. Come or write.—WM. T. THRASHER, Springwood, Va.

**Salt Pond Herd.
BUDOC JEANYS.**

PAUL J. 21625, son of Oom Paul, head of herd. Sows by Red

Kover, Jumbo, Longfellow and other noted hogs. A choice lot of Pigs at reasonable prices. Ready to ship.

S. A. WHITTAKER, HOPEVILLE, VA.

CROP FOR WET LAND.

I have about two acres of low land. It has broom straw and bull rushes on it now. Will you tell me what crop would do well on the land. It is low, and in wet weather is covered with wajor. A NEW BEGINNER.

You can grow no crop on the land until you have got the water off it. Drain it, and then, as soon as it is dry enough to plow, plow it and give it a dressing of lime, say one ton to the acre, and then barrow it and leave to drain and sweeten. If it gets dry before September, sow wheat, oats, rye and crimson clover on it for a winter cover.—Ed.

DEEP PLOWING.

In an article in the February number of the Planter, on page 127, you state your belief that the single turning plow ought to be relegated to the museum of antiquities. I also find in previous numbers of the Planter that you advocate deep plowing and subsoiling. Now, what I want to know is this:

1. Is there a disc plow on the market that will plow a furrow 12 or 14 inches deep, and so do away with the subsoil plow altogether?

2. Do you advocate disturbing the soil to a depth of 14 inches for other crops than alfalfa?

3. Is it better to have the soil any deeper than 12 inches for alfalfa?

4. Is there any difference in the principle of construction between an ordinary disc harrow and a cutaway, other than the scallops in the discs of the cutaway? BACKWARD.

Pullman, Ill.

1. There are several disc plows on the market that will turn a furrow 12 inches deep if power sufficient be used to pull them. There are several offered with from 24 to 30 inch discs. Whilst this deep turning is therefore possible it is not wise to practice it all at once. The new soil should only be turned to the surface at the rate of two or three inches each year, and then only in the fall so that it may have time to become aerated and the plant food be made available before the crop is planted. The subsoil should be broken with a subsoil plow as deep as possible, and thus gradually become better fitted to bring to the surface.

2.3. Yes, plow deep for all crops, but do it gradually.

4. No.—Ed.

POULTRY DISEASES.

I read with interest your poultry notes and gain some useful knowledge, and now I beg you to tell us how to distinguish the different diseases in fowl and what remedies to use for them. I have a friend who has contracted diphtheria (so the doctor says) from treating hens throats for

ROSE DALE HERD....**Aberdeen Angus**

Top notch young registered Bulls our specialty. A few heifers to offer with bull and calves. We send out none but good individuals. Correspondence and inspection of herd invited. **ROSE DALE STOCK FARMS** Jefferson, Va.

REGISTERED**Angus Calves.
Large Toulouse Geese.**

J. P. THOMPSON, Orange, Va.

ORCHARD HILL PURE-BRED**POLAND-CHINAS.**

Spring pigs and a yearling Guernsey bull, and two bull calves, also a few White Wyandottes and Buff Orpington cockerels.

F. M. SMITH, Jr., Charlottesville, Va.

EXTRA FINE**Poland-Chinas.**

Lamplighter, Perfection and Sunshine stock. Write for Circular.

C. H. MILLER, R. F. D., 3, Richmond, Va.

Registered P. China

8 Berkshire C. Whites. Large strain All ages mated not akin, 8 week pigs. Bred sows, service boars, Guernsey calves. Scotch Collie pups and poultry. Write for prices and free circulars. P. F. HAMILTON, Cochransville, Chester Co. Pa.

**HIGH CLASS****Poland Chinas.**

Sunshine and Perfection Strains. Boars ready for service, Glits bred for Spring litters. Choice pigs of both sexes from 4 to 6 months old, mated for breeding, that are no akin. All eligible to Registry and first class. Prices low, write stating what age is wanted. Eggs for hatching from choice Buff Plymouth Rocks, \$1 for 15.—E. T. ROBINSON, Lexington, Va.

POLAND CHINAS

With the business haws: large, mel low, easy keepers. We did not have half enough fall pigs. Have added to our herd a few choice sows bred to some of the best boars in Ohio. Will be well fixed in spring pigs and have something extra good to offer for April and May delivery. A few bred sows and some nice young boars for sale. Satisfaction guaranteed. write your wants.

A. GRAHAM & SONS,
Overtown, Va.

**Poland China
Pigs**

Some fine ones, young sows bred, young boars and pigs. No better breeding in the United States. My herd boars have been bred by J. H. Sandea, Lookmeover. Perfect Known, Proud Perfection, Corrector and High Roller, the greatest prize winners of the breed—my sows have been as carefully selected.

RED POLLED CATTLE. Fine good young bulls. Will sell few cows and heifers. **ARROWHEAD STOCK FARM**, Charlottesville, Va., SAM'L B. WOODS, Prop.

Mention The Southern Planter.

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Rate 2 cents per word. Cash with order. Initials and figures count as one word. 25 cents minimum charge.

THE SOUTH SIDE STRAWBERRY CRATES and Baskets. Send for Catalogue and prices. South Side Mfg. Co., Petersburg, Va.

EGGS FOR HATCHING FROM PURE BRED B. F. Rocks. \$1.00 per 15. Express paid on 2 or more visiting to points in the state. Samuel Scott, Vinita, Va.

WANTED BY PRACTICAL FARMER Position as farm manager or to look after gentleman's country place. Good recommendation from 1st place. Single. Good preferred. F. E. Davies, Zanol, Va.

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FOR SALE—CHOICE, WELL GROWN, registered Guernsey bull calves from one to twelve months of age out of first class cows, and descendants of Pat of Haddon, Banavie and Imp. Island Champion. Prices moderate. Address, W. M. Wallace, Falmouth, Va.

FOR SALE OR EXCHANGE—NEW 3 HORSE Chastanooga Disc Plow, anything useful taken. A. O. Mays, Fredericksburg, Va.

ICH MOECHTE MIT EINER DEUTSCHEN Dame corresp. und ver. zwischen 40 & 50 Jahre weiche die Landwirtschaft & a/e them Lande wohnen moechte. Address, P. G. H. 1350, Ly-choburg, Va.

FOR SALE 1 REG ABERDEEN ANGUS Bull 4 years old and 2 Reg. Red Poll Bulls aged 2 and 7 years. Price \$100, each. address, BREEDER, Box 405, Richmond, Va.

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HORSE-RADISH SETS, ONLY 20 CENTS per dozen, postpaid. Gladiolus Bulbs, large size, mixed colors, same price. S. P. Yoder, Denbigh, Va.

AGRICULTURAL LIME, \$4.75 PER TON in bags. Canada Ashes and Paris Green at lowest prices. Barrel covers 12.50 per 1000. N. J. B. Etheridge, Princess Anne C. H., Va.

WANTED, A MAN WITH FAMILY to tend farm on shares. Must be good teamster and understand what to do and how to do it. O. D. Hill, Kendall, Va. Va.

BICYCLES. THE VERY BEST, \$20; TIRES, best grade, \$4 per pair; all kinds of Bicycle goods cheaper than you can buy elsewhere. Repairing quickly and cheaply done; Write for prices on any goods you want. Second hand Bicycles, \$4 to \$8 each. N. J. B. Etheridge, Princess Anne C. H., Va.

WILL SELL ON AND AFTER JUNE 1ST, 1906, 18 Shropshire and Dorset Ewes and 1 Hampshire Buck. All in good shape; ewes lambed before March 1st this year. J. A. Spears, Dry Bridge, Va.

FOUR HUNDRED DOLLARS (\$125 CASH, balance on time), will buy $\frac{5}{8}$ acres land, 3 miles from Culpeper, Va.; new 4-room house; near good mineral spring. Lewis P. Nelson, Jr., Culpeper, Va. Box 129.

SOJA BEAN SEED FOR SALE; \$1.25 PER bushel, delivered Petersburg. Apply to R. W. Watson, Petersburg, Va.

WANTED—A FIRST CLASS, ENERGETIC reliable man to rent on shares, a splendid farm of 700 to 800 acres; renter must furnish half of stock, etc. Best references required. For information, address R. F. Denley, R. F. D. 3, Wytheville, Va.

FIFTEEN EGGS FOR HATCHING FROM my winter laying Barred Plymouth Rocks, \$1. T. M. Young, Mocksville, N. C.

WANTED TO SELL A SECOND-HAND, N. 1 Smith Stump Puller. J. M. Lewis, Weldon, Va.

POSITION WANTED—BY YOUNG, SINGLE man, as superintendent of large up-to-date farm. Have had good education, experience for eight years with stock of all kinds and management of hands. Am 32 years old and have never left home. Can run steam engine with thresher and am handy with carpenter's tools. Can give references from practical farmers. Address, Chas. W. Beall, c/o Mr. J. E. Muncaster, R. F. D. 5, Rockville, Md.

SOME CHOICE BERKSHIRE BOARS ready for service for sale; also March pigs. Beattles. L. B. Johnson, R. F. D. 4, Charlottesville, Va.

Scotch-American.

Practical man of experience, 28 years old, desires position on stock or diversified farm in Va., N. C., Tenn., or Ga. Thoroughly efficient in all branches of southern farming and live stock, 1. e. adept horseman—saddle and harness. Splendid hands that develop the "Perfect Mouth." Beef cattle, dairy cattle, modern dairying and expert butter maker swine and poultry plant; excellent feeder and conditioner of live stock; understands all farm machinery, draining of lands, fencing, economical fertilization, modern preparation and cultivation; temperate, systematic and an earnest worker; good accountant and business agent; moderate wages; executive ability and accustomed to negro labor; credentials on file; very best of reference given as to character, ability, judgment and industry; correspondence solicited. Address: "BACHELOR,"

Care Southern Planter.

BEAT THE GONG ON KARTE!

CHESTER WHITES at farmers prices; now booking orders for spring delivery.

S. M. WISECARVER, Rustburg, Va.

REG DUROC JERSEY

Boar, 2 yrs. old, good color, wt. about 400 lbs., for sale; also a few nice pigs of both sexes.—W. S. NORRIS, Mattox, Va.

that disease. I should like to be able to know that disease in fowl so as to take vigorous measures at once. I should think the best remedy would be to kill the sick fowl and burn them as soon as possible. C. L. MINOR.

Richmond, Va.

It would be impossible for us, in the space which we can devote to answering enquiries or even to poultry, to describe and prescribe for all the diseases to which poultry are subject, and it would serve no very useful purpose to do so, as so few would take the trouble to diagnose and treat the diseases. After long experience in poultry keeping our conclusion is that it is a very doubtful policy to endeavor to cure sick fowls. Our own practice is always to kill at once the first sick fowl

BERKSHIRES.

6 Boars and 3 Glits, 7 months old. 20 Pigs (arrowed March 5th and 8th 1906. All the above have the breeding of the great LONGFELLOW, and his two sons, MODEL DUKE, \$700 Boar, and KING LONGFELLOW, never defeated, also COLUMBUS and ELMWOOD CHIEF, all representing the best American Berkshires ever known, also COMMANDER, imported, winner 1st Royal Show, England; and imported LOYAL MASON 1 and LOYAL MASON II, sons of the GREAT ENGLISH LOYAL BERKS.

8-4 months boars from my DAISY OF BILTMORE II by BERKLEY OF BILTMORE and LOYAL LEE'S CYNTHIA OF BILTMORE.

By KING HUNTER, two bred sows from Biltmore Farms sale, August 23, 1905. Where can better breeding be found than the above? ROBERT HIBBERT, Charlottesville, Va.

BERKSHIRES.

Send in your orders for pigs or shoats. We will ship you good individuals, superb in conformation marking and health. We breed for the Farmer who wishes to improve his herd, or start a new one. If you can do so, come and see our stock.

WALNUT GROVE FARM,

W. J. Craig, Manager, Shawsville, Va.

BERKSHIRE PIGS

of best breeding, for sale. Among them, four especially fine Boars, four months old. Marking and formation perfect. Price \$7.50 f. o. b.

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BERKSHIRE I offer some exceedingly choice young boars for sale; **BOARS.** by Imported Dancesfield Tailor, 76490 and out of Biltmore bred sows. It will be hard to find better or cheaper stock

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Berkshire Pigs

of the best breeding, for sale; fine individuals, prices right. Also M. B. TURKEYS, a few B. P. ROCKS and S. C. B. LEHORN Cockrels for sale. J. T. Oliver, Allens Level, Va.

2 PURE-BRED

Berkshire Sows.

and 1 Boar, 2 yrs. old, for sale. For particulars, etc., Address

DILEMUTH BROS, Blackstone, Va.

BERKSHIRES.

2 Selected Boars ready for service: Sprinklet for later delivery (April and May) Correspondence solicited.—E. LODGE ROSS, R. F. D. 3, Bedford City, Va.

Tamworth Pigs

From Registered Stock of Fine BREEDING

VOLNEY OSBURN, Bineumont, Loudoun Co., Va.

Mention The Southern Planter.

and burn or bury it, and thus prevent infection of others and the premises. There are few fowls worth spending money in drugs upon them. As most of the fatal diseases are contagious it is better to prevent this than to save the fowl first attacked. Whilst doctoring one, hundreds may be infected. Diphtheria in fowls has always been held to be communicable to human beings, and therefore no risk should be taken by hesitating to kill the first one attacked. The disease is indicated by the formation of sores in the mouth and around the eyes and the growth of cheesy matter and membrane at the top of the throat. The hatchet is the only safe treatment.—Ed.

COW PEAS.

In the 1905 Annual report of the Commissioner of Agriculture of Va., page 67, is reference to Mr. E. A. Saunders, Jr.'s, large growing of cowpeas. Can you, in the April Southern Planter, give us a short account of his practices? What does he do with his crop and his land throughout; and how does he handle them?

R. S. LACY.

District of Columbia.

Mr. Saunders grows very large crops of wheat and corn, producing thousands of bushels every year, and he uses the cowpeas to keep up the fertility of his land. He may make some of the crop into hay, but the primary object is improvement of the soil, for which purpose they are plowed down. So long as there is plenty of available phosphoric acid and potash in the land this practice will be successful, but whenever the supply of the mineral fertilizer becomes exhausted the peas will fail to grow and failure of the wheat and corn crops will be certain. Peas are large consumers of phosphoric acid and potash and both these elements are essential for the wheat and corn crops. The time is bound to come when it will be necessary to apply phosphoric acid to the soil, either in the form of acid phosphate or as ground South Carolina rock (limestones). The latter form will be the cheapest and probably fully effective if used whilst the land is full of vegetable matter. Lime will make further potash available.—Ed.

ORCHARD MANAGEMENT.

I would like to have advice in regard to the management of two orchards. Will you kindly let me have it in the next issue of the Planter, and oblige. Orchard No. 1 is five or six years old and consists of about 400 apple and 400 peach trees, planted alternately, and is located on the north side of a rather steep hill. When I bought the farm, in 1904, this orchard was in cowpeas which had been sowed broadcast, using 300 pounds of 14 per cent acid phosphate to the acre. This

APRIL POULTRY BARGAINS.

A Grand Opportunity to Secure Choice Birds
at prices within the reach of all.

50 S. C. Buff Orpington Cockerels @ \$2.00 each or 3 for \$5.00.
50 S. C. Buff Orpington Hens and Pullets @ \$13.00 per dozen.
20 White Wyandotte Hens and Pullets @ \$18.00 per dozen.
20 White Wyandotte Cockerels @ \$2.00 each or 3 for \$5.00.
50 Partridge Cochins Hens and Pullets @ \$18.00 per dozen.
30 Partridge Cochins Cockerels @ \$2.00 each or 3 for \$5.00.
20 Barred Rock Hens and Pullets @ \$13.00 per dozen.
12 S. C. Brown Leghorn Hens and Pullets @ \$1.25 each.
10 S. C. Brown Leghorn Cockerels @ \$2.00 each, grand birds.
6 Silver Spangled Hamburg Pullets @ \$1.50 each if all are taken.
5 S. C. Rhode Island Red Pullets @ \$2.00 each; Cockerels same price.
20 S. C. White Leghorn Hens and Pullets @ \$1.50 each.
Eggs for Hatching of known fertility from all of the above kinds and many others
\$1.50 per 15—\$4.00 per 50—\$7.50 per 100.
Pekin Duck Eggs, \$1.50 per dozen, \$7.50 per 100, strictly first-class.
White Holland and Bronze Turkey Eggs 40c. each or \$4.00 per dozen.
Four Bronze Hens 12 to 14 lbs. each @ \$4.00 per hen if taken quick.
Two one year old Pea Cocks @ \$6.00 each. Pea Hens same price.
Two Cyphers Incubator Cos. 360-Egg Incubators used only twice \$25.00 each or the two for \$45.00. One 100-Egg Finland Incubator, \$10.00, good as new.
Shropshire and Southdown Service Rams and Lambs of the best breeding.
Poland China, Berkshire and Chester White Pigs all ages, Service Boars and bred Sows, a Specialty.
"PRIDE OF OAKHURST" YELLOW SEED CORN, the best Corn for Farmers, matures early, yields well and beautiful golden yellow color. Price, \$2.00 per bushel; three bushels for \$5.00, sacks included.
Write your exact wants, and give explicit shipping instructions, including Express Office Stamp.
Address JAMES M. HOBBS, No. 1521 Mount Royal Avenue, BALTIMORE, MD.

RED POLLED CATTLE.

One Registered Bull and eleven Registered Cows, and also a Junior Herd, one Bull and four Heifers. We also offer a few calves entitled to registration.

We have a few **BERKSHIRE SOWS** due to farrow in March and April.

EGGS FOR HATCHING;

BRONZE TURKEYS, PEKIN DUCKS, B. P. ROCKS, BROWN LEGHORNS, TOULOUSE GEESSE ALSO B. P. ROCK COCKERELS.

M. B. ROWE & Co., - - Fredericksburg, Virginia.

LARGE ENGLISH BERKSHIRES FOR SALE

One 10 months old BOAR, correctly marked, well grown, out of an imported sow farrowing 12 pigs at this litter.

Some extra bred Gilts and pigs not akin for sale.

FOREST HOME FARM
PURCELLVILLE, VIRGINIA,

BARGAINS IN FARM LANDS Lawton, Comanche County, Oklahoma.

If you want to live long and be prosperous, this is the Country for you to come to, as we have the best water and the finest climate and the best agricultural lands in the Southwest; all kinds of vegetables, fruits and tame grasses do well here; in fact, this is the best farming and stockraising country in the United States. Our springs are early and winters short and mild, and you can plow here 10 months in the year in your shirt sleeves. For further information, call on or write to W. R. SANNER & COMPANY, 322 Third St., Lawton, Comanche County, Okla.

MORVEN PARK.

The Property of WESTMORELAND DAVIS, Esq.

Large White Yorkshires.

LARGE WHITE YORKSHIRE PIGS from prize winning families for sale. Herd headed by imported boar, "Holywell Huddersfield" No. 750 (A. Y. C.), second prize at Yorkshire Show, England 1904. These pigs are the English Bacon breed: they are prolific breeders, economical feeders, and hardy of constitution. During the month of August the two farrowing sows, imported Sweetest Polly (A. Y. C.), gave birth to 17 pigs, and the sow imported Holywell Empress (A. Y. C.), gave birth to 14 pigs, and in December 1905, Holywell Czarina, 20th. farrowed 17 pigs. Orders will now be received for boars and sows from some of these and similar litters.

Reg. Guernsey Cattle.

REGISTERED GUERNSEYS—Herd headed by imported Top Notch, 9023 (A. G. C. C.), a son of Imported Itchen Beda advanced Reg. No. 136, assisted by Mainstays Glenwood Boy, 7607, A. G. C. C. (son of Jewell of Haddon), advanced Reg. No. 92. This herd is rich in the blood of Mainstay, Rutila's Daughter, Imported Honoria (Guernsey Champion, first prize at St. Louis), the Glenwood, Imported May Rose and imported Masher families. Bulls only for sale.

Dorset Horn Sheep.

DORSET HORN SHEEP.—Flock headed by the Imported Ram, "Morven's Best," No. 4132 (C. D. C.); first prize at the English Royal 1904.

Orders now received for Fall born ram lambs.

Flocks and herds may be viewed by appointment.

Address

LIVE STOCK DEPARTMENT, MORVEN PARK,
LEESBURG, LOUDOUN CO., VA.

crop made a very good growth, being heavy in places, and as the vines had fallen down and matted on the ground a considerable quantity of them were left by the mower. I did not have time to plow this orchard last spring but it was harrowed twice with a spring tooth harrow and apparently gotten in fair condition. I then sowed three pecks of peas and one of kaffir corn, using a grain drill but no fertilizer. The crop started off very well but soon turned yellow and made poor growth, being hardly worth cutting except where it was heaviest the year before, and there it was only fairly good. I do not know whether the failure was due to poor preparation of the land, lack of fertilizer, or whether peas had been used too often. The peach crop was heavy, but the peaches did not mature well, the peaches rotting and drying up on the trees. The apple crop was light (being the first year of bearing) and the apples were inferior in quality. The trees made very good growth and all of them looked well, except a few apple trees which had rather light foliage, with yellow or red spots on the leaves. As the land is steep and rather hard to cultivate I would like to stop cultivating it as soon as advisable, but the neighbors tell me it was badly prepared before the orchard was planted and has never been thoroughly plowed since. Would you advise deep plowing and subsoiling when far enough from the trees to keep from injuring the roots? Please advise me in regard to cultivating, fertilizer, and crops to plant. Would like to seed to grass as soon as advisable. If seeded in grass would it be best to pasture with hogs and sheep (which I expect to make specialties of), or to mow the grass and leave it to mulch the trees?

No. 2 is a small orchard of 300 wine sap apple trees, two years younger than No. 1. It is located on top of a hill which is only slightly rolling and is no trouble to cultivate. This orchard was in soy beans, which made a fairly good crop of hay. It was treated the same as No. 1 last year, and put back in beans, the result being a lighter crop than the previous year, but the trees made good growth and are looking well. The land in these orchards is partly gray and partly red, but all has red subsoil.

H. D. COLEMAN.

Albemarle Co., Va.

What your orchards evidently need is improvement of the soil. It is a mistaken idea to expect an orchard to make good growth and fruit and also to grow crops for man and stock. The land set out as an orchard ought to be devoted solely to the trees and their needs. Whatever crops are grown there should be to help the trees by improving the soil. The best system of orchard management is to plow and subsoil the land the first or

Did You Ever Hear of a Hog Life Preserver?

There is only one on the market. For 30 YEARS HAAS HOG REMEDY has been tested WITHOUT FAILING. It is conceded to be the BEST HOG MEDICINE ON EARTH! If you have never used this Remedy, send for a 30 DAY TRIAL order and stet it yourself.



Dr. J. S. HAAS,
Indianapolis, Ind.

Dear Sir:—

Enclosed find remittance another shipment of Hog Remedy as I do not want to be without it. Our hogs are doing fine, have not lost one since I began feeding your remedy, which has been a money-saver for me, getting my hogs to market on less feed and without loss from disease and nutritions.

Yours truly,
CHAS. A. TRAINER,
Butcher and Live Stock Dealer,
East Liverpool, O.

Any reader of this paper who will remit direct for a can or half can of the Remedy at prices quoted and will give same a fair trial for 30 days, will have his money refunded; if, at the end of that time he is not satisfied that his hogs have been benefited, that the Remedy will do all that is claimed for it and that it is the best hog medicine he has ever used.

Have you read "Hogology"? This valuable book contains the insurance proposition and much other valuable information. Free to readers of this paper. PRICE OF REMEDY: 15 lb can, \$12.50; 12 lb can, \$6.50; packages, \$2.50; \$1.25, and 50c. Express paid on cans and half cans.

DR. J. S. HAAS, V. S.,

Indianapolis, Ind.

Fancy Berkshire Pigs

From directly imported sows and boars. Practically imported blood for you at one-half usual price for such breed; half imported and half American breeding at pocket-change prices—just a little money order, no bank account needed for these. Extra five open and bred gilt.

PEKIN DUCKS and EGGS for sale. S. C. Brown Leghorn

eggs cheap. Barred Plymouth Rock eggs cheap. Absolutely

pure—all of them. Thomas S. White,

Fanshott Stock and Poultry Farm,

Lexington, Va.



Sir John Bull.

The Grove Stock Farm



M. & W. and So Ry.

T. O. SANDY, Prop. Burkeville, Va.

Holstein Friesian Cattle.

Berkshire Hogs.

Barred Plymouth Rock Cockerels.

GOOD STOCK AT REASONABLE PRICES.

I have recently added to my Berkshire Herd the Imported Boar, GLENBURN CATCH, 84794. You are sure to want some of his get.



WALTER B. FLEMING, Proprietor of the Bridle Creek Stock Farm, Warrenton, N. C.

WE POSITIVELY GUARANTEE to breed and ship the very best strains of thoroughbred registered LARGE ENGLISH BERKSHIRE Hogs for LESS MONEY than any other firm in the U. S., the superiority of our stock considered. Send us your order and we will satisfy you both in price and stock.

The South Side

EGG SHIPPING BASKETS,

South Side M'fg. Co.,

Petersburg, Va.

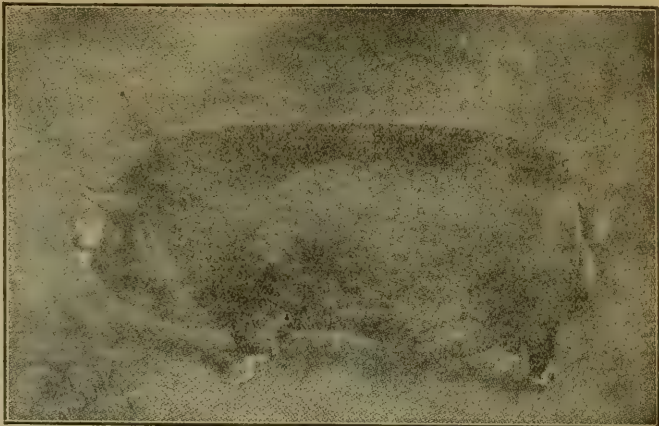
BARON PREMIER 3d. 75021.

is not for sale unless a cash offer of \$2600 is made. I regard him as being the best boar living in the United States to-day. He is a grand sire, and nicks well with imported stock. At the Louisiana Purchase Exposition, St. Louis 1904 he was an easy winner of first prize in his class (of 33 entries) 12 and under 18 months. His sire, Premier Longfellow, was the Grand Champion and recently sold for \$2000.

Lord Premier 50001, a litter mate to the dam of Baron Premier 3d sold for \$1500 when a little more than six years of age. Du-ches 279th 75009 grand champion sow at the Universal Exposition in 1904 is very closely related to Baron Premier 3d. Baron Duke 60th 78356 is a half-brother and otherwise connected with Baron Premier 3d, selling for \$600 when a shoat, and subsequently declared champion boar at the Lewis & Clark Exposition. Baron Premier 3d, at a little less than three years old in breeding condition, is estimated to weigh 1000 lbs.

I have pigs from six weeks to ten months old out of selected imported and domestic sows sired by Baron Premier 3d offer at reasonable prices. Our February sales amounted to \$1600. Write for illustrated catalogue.

W. H. COFFMAN, Bluefield, W. Va.



second year after planting and then to plow each year in the spring, say in May. Do not run the plow or subsoiler near enough to the trees to disturb the roots or deep enough to do so but have the soil around the trees broken loose with a mattock. Cultivate frequently until July, then apply 300 or 400 pounds of acid phosphate and 100 pounds of muriate of potash per acre and sow one bushel of cowpeas per acre. In September plow these peas down and sow 15 pounds of crimson clover per acre, with three pecks of wheat, oats and rye mixed. This to make a winter cover for the land. In April or May following plow this crop down and cultivate until July and fertilize and sow cowpeas as before, following with the clover and grain mixture in the fall. By following this rotation for a few years the land will become filled with humus and fertility and the trees will grow freely and ripen up the wood and buds well, and should then fruit profitably if proper attention is given to the spraying of the trees to keep down fungoid and insect pests. From the description you give of the condition of some of the trees it is evident that they are infested with the fungoid disease, causing leaf blight. If you will refer to the spray calendar in the March issue you will see the proper spray to use and the time to use it. When the trees begin to make too much wood growth is the time to put the orchard down in grass and not before. When put into grass this crop should only be grown for the

GLENBURN BERKSHIRES

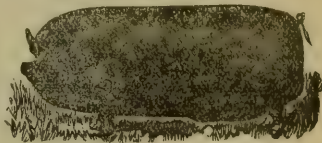
Pigs out of splendid imported and American sows, and by grand imported boars, including LOYAL HUNTER, the largest and best boar ever imported into this country. These represent the best herds and greatest winners of England and America. Have recently added to our herd, two splendid daughters of LORD PREMIER in pig by PREMIER LONGFELLOW, grand champion of the World's Fair. Also two superb COMBINATION Sows in pig by the great MASTERPIECE, the highest priced boar of the breed. A. J. C. C. Jersey cows, bulls and heifers for sale. Mention this paper.

J. D. KIRK, Roanoke, Va.

Large English Berkshires

Extra choice March litters and nice to follow, at low figures. Billmore and other noted blood. Headed by 2 Royal Boars. Book orders now and be in time

C. S. Towaley, The Hogman,
Red I. II, Va.



BERKSHIRES

of the most fashionable English strain, for sale by
COL. HENRY HOLLYDAY, EASTON, Md.
Prices reasonable Correspondence solicited

ELKTON STOCK FARM

BREEDERS OF PURE BRED
HEREFORD CATTLE

PERCHERON HORSES

BERKSHIRE HOGS.

Stock for sale at all times at reasonable prices
All statements and representations guaranteed.

FOREST DEPOT,

VIRGINIA.

benefit of the trees. It should be cut and the cutting be allowed to remain as a mulch on the land.—Ed.

DRILL FOR SOWING COWPEAS.

Can you or some of your subscribers tell me what make of wheat drill is best adapted to sowing peas. One of my neighbors has a drill that breaks them badly. I want to find a drill that will sow one bushel to the acre and not crack them.

BUMPAS.

All the newer makes of drills are so fitted as to sow peas without cracking them. Send to the implement dealers advertising in this issue and ask them to send you their catalogues, telling them what you want, and they will fit you up.—Ed.

LICE ON CATTLE.

My cattle are rubbing off all the hair on their shoulders and necks. What is the cause and the remedy?

YOUNG FARMER.

James City Co., Va.

The cattle are infested with lice. Make kerosene emulsion as directed in the March issue of the Planter, page 212. Dilute the emulsion by adding 8 parts of water to one of emulsion and apply with a cloth or brush over the body of the animal, especially along the back from the head to the tail, so that it will run down all over the skin. Fifty animals can be treated with ten gallons of the emulsion.—Ed.

GRASS SEEDING—TOBACCO FERTILIZER.

I have a lot of six acres, cultivated three years ago in corn, followed by half of it in peas and half in tobacco, both liberally fertilized. Last year had it in wheat and in the spring sowed sapling clover on it but failed to get a stand. It is light soil and will produce five barrels of corn per acre. I want to get it in Herds grass or some better mixture if you can suggest one, and write to ask if the land, with the help of a ton of bone meal, would bring a crop of hay that I could cut, and if I intend to sow the Herds grass this fall shouldn't I plow it up this spring and harrow frequently during the summer preparatory to sowing the Herds grass?

Will you advise me as to fertilizer for tobacco. I have been using a 3.8.3 fertilizer and was thinking this year of adding 15 or 20 pounds of sulphate of potash to each 200 pounds of the 3.8.3 for tobacco. This fertilizer is generally applied in the drill for the tobacco at the rate of 400 or 500 lbs. per acre. Would it not be better to apply broadcast, say 700 lbs. per acre?

How am I to tell if my land needs potash?

How is acid phosphate for corn?

JOHN S. FLEMING.

Amelia Co., Va.

MONTVIEW JERSEYS.

We have for sale, at reasonable prices, Bull calves sired by our prize-winning Imported Marett's Flying Fox and also one masculine son of the famous Forfarshire.

MOUNTVIEW BERKSHIRES.

MANOR FAITHFUL, pronounced by Geo. F. Weston, Superintendent of Biltmore Farms, the BEST BOAR HE COULD FIND IN ENGLAND. Sold for \$8-5, and weighed 1100 pound- in show condition. We have now pigs by this great boar out of splendid bred sows. Only a limited number will be sold.

We also have a fine litter from an imported sow by BARON PREMIER 3rd, the boar that was first prize-winner in his class at the St. Louis Exposition.

Montview Stock Farm,

CARTER GLASS, Owner.
C. L. STAHL, Manager,

Box 513, Lynchburg, Va.

BILTMORE FARMS

R. F. D. No. 2, Biltmore, N. C.

THE HIGHEST STANDARD

JERSEY BULL CALVES

BOTH AMERICAN AND ISLAND TYPE.

Also young Berkshire Boars and Sows

of the best conformation and breeding for sale at all times.

Write for prices and descriptions of what you want.

Address, **BILTMORE FARMS,**
R. F. D. No 2, Biltmore, N. C.

SUNNY HOME HERD

—OF—

Aberdeen Angus Cattle.

The two bulls at the head of this herd (Baron Roseboy 57666 and Jester 60071), are as well bred as any in America. Baron Roseboy is a grandson on both sire and dam's side of Heather Lad 2nd, the greatest stock bull of the Angus breed ever in America. Jester is a grandson on sire's side of Equestrian, the greatest bull Scotland has produced in many a day. Jester's dam Jilt 12th, is the best female in the great "Grandview" herd and is a granddaughter of the famous Bushman—by Young Viscount—and a great granddaughter of Paris 1166, the bull who turned the eyes of the stock growing world toward the Angus breed at the Paris Exposition. Well sell sons of these two great bulls at prices within the reach of every stockman. Write Farm at Fitzgerald, N. C.

A. L. FRENCH, Prop.,
R. F. D. Byrdville, Va.

The Delaware Herd of

ROYAL ANGUS CATTLE

is not surpassed either in breeding or individual animals by any herd in the East. At the head of our herd is

PRINCE BARBARA, 68604,

the son of the great \$9,000 Prince Ito. Females of equally choice breeding. Write your wants. Remember, we take personal care of our cattle; keep no high priced help; incur no expense of exhibiting; all of which enables us to offer stock at equitable prices. Send for pamphlet, 15 Bulls from 2 to 15 months old for sale.

MYER & SON, Prop.

Bridgeville, Del.



Plow the land and work repeatedly during the summer so as to kill out all the weeds possible, by encouraging them to sprout and then killing the young plants. Then apply bone meal broadcast in July and work in with the harrow and seed in grass alone in August, and you will get a stand which will give you a bay crop the first year. We would mix orchard grass and tall meadow oat grass with the herds grass in equal parts and sow three bushels of seed to the acre with 10 pounds of red or sapling clover per acre. A dressing of 15 or 20 bushels of lime per acre worked in during the summer would help ensure a good stand of clover. See the article on Work for the Month in this issue for the tobacco and corn fertilizer. You can only ascertain the need of potash by making a test with it.—Ed.

TOBACCO FERTILIZER.

I have a piece of sandy bottom that was in peas last year; for tobacco please tell me what kind of fertilizer to use and how much per acre.

C. W. BLANCETT. *

Patrick Co., Va.

Read our article on Work for the Month in this issue and follow the advice there given to tobacco planters.—Ed.

BUGS ON WATERMELONS.

Please advise me what to put on watermelons to keep the bugs off the vines. I've tried nearly everything and couldn't get anything to do any good.

OSCAR GOOD.

Shenandoah Co., Va.

There is only one certain way of keeping bugs off melon and cantaloupe vines at the time when they do most injury, that is, just when the plants are starting to grow, and that is to use a protector made by putting tobacco plant bed muslin around and over the top of a light wood frame, say six or eight inches in diameter, and putting one of these over each plant. The same end may be secured by bending two twigs over the plant and crossing each other and pushing the ends into the ground and then putting the muslin over these.

Remove when the plants are commencing to run. Paris green may be applied in solution, one pound to 100 to 200 gallons of water when the bugs are on the plants. Some people say tobacco dust dusted on the plants when wet with dew will keep off the bugs. It is useful in preventing insect damage on most plants, and is a good fertilizer.—Ed.

HEN MANURE—FALL PLOWING.

1. Can you give me the analysis and the value per ton of hen-manure?

2. What are the advantages of fall and winter plowing for the following spring crops? Many object to it, saying that the freezing and thawing weakens the land.

Hygeia Farm Holsteins.

The Finest Herd of Registered Holstein Friesians
Ever Brought Together in the Southern States!
SOME OF THE MORE NOTED ANIMALS.

COWS

THE JESSIE VEEMAN FAMILY

headed by that grand individual, JESSIE VEEMAN A., and including seven of her daughters, have come first.

JESSIE VEEMAN A. is admitted by the best judges to be one of the finest types of the Holstein cow. She was the winner of the championship and the first prize at New York State Fair in 1903. Her A. R. O. Record is 26.25 lbs. butter in 7 days, with a daily milk production of over 33 lbs.

JESSIE VEEMAN HENGVERVELD, one of the daughters of this cow, at 3 years produced 16.8 lbs. butter in 7 days, and at 4 years 20.33 lbs. butter in 7 days, under official tests.

JESSIE VEEMAN C., another daughter of Jessie Veeman A., closely resembles her mother in outward conformation. She carried off the highest honors at the New York State Fair in 1905 under the strongest competition. Her A. R. O. Record is 19.61 lbs. butter in 7 days, and 79.12 lbs. butter in 30 days.

The five other daughters are splendid individuals and show great producing ability.

JOE BACH JOSEPHINE

another famous member of the herd, is one of the five cows which won the "dual purpose test" at St. Louis in 1904. Her A. R. O. Record is 23.33 lbs. butter in 7 days.

SCOTIA A. R. O. Record, 20.13 lbs. butter in 7 days.

NETHERLAND FANCY ROSETTA, A. R. O. Record, 20.53 lbs. butter in 7 days.

COUNTNESS DORINDA DE KOL, A. R. O. Record, 20.37 lbs. butter in 7 days.

Princess KORNDYKE DE KOL, is a very fine individual whose breeding shows a combination of the blood of DE KOL 2ND, BELLE KORNDYKE, JESSIE BEETS, and NETHERLAND HENGVERVELD. The average official record of her two nearest dams is 24.43 lbs. butter in 7 days.

BULLS

PONTIAC CALYPSO'S SON.

This grand young bull is very much the type of his grand sire, the greatest living Holstein bull, HENGVERVELD DE KOL, the sire of over 55 A. R. O. daughters. His dam, PONTIAC CALYPSO, has 75% of the same blood as the WORLD CHAMPION 3 YEAR OLD HEIFER PONTIAC COLUMBO, and is half sister to the champion heifer, duced 17.86 lbs. butter in 7 days. Her milk during the test showed 6.79% fat. The average official record of three nearest dams of this young bull is 25.58 lbs. butter in 7 days, and the milk showed fat test of 4.06%.

AAGGIE CORNUCOPIA MERCEDES COUNT

is also a very fine young bull, a grandson of the world's champion cow, Aaggie Cornucopia Pauline, A. R. O. Record 24.31 lbs. butter in 7 days. He traces five times to the great cow, DE KOL 2ND, through the sires, DE KOL 2ND'S PAUL DE KOL, 45 A. R. O. daughters, and DE KOL BURKE, 23 A. R. O. daughters.

KING ORMSBY FRIEND

This bull is an animal of exceptionally fine conformation. His dam, PAULINE DE KOL MUTUAL FRIEND, produced under 2 yrs. of age, 16.22 lbs. butter in 7 days, and as a 3 yr. old, 19.55 lbs. butter in 7 days, official tests. His half sister, JOHANNA ORMSBY DE KOL, at least two years old made an A. R. O. Record of nearly 15 lbs. butter. The records of his two granddams, DUCHESS ORMSBY and DE KOL KONIGR PAULINE, average 23.79 lbs. butter in 7 days, official tests. He traces four times to De KOL 2nd.

WHY HOLSTEIN FRIESIANS?

For over 2000 years these cattle have been bred in the Netherlands. When the Romans exacted tribute from the Friesians, it was paid in the hides and horns of these cattle. (Chambers Encyclopedia, London edition, 1881, Vol. 6th.)

Postlethway's Dictionary of Trade and Commerce, published in London in 1767, and the best authority of that time, though unfriendly to Holland says, Vol. "Nor do I know anything properly of their own growth that is considerable either for their own use or for traffic with their neighbors, besides butter, cheese and earthen wares"; but says, "It appears to every man's eye, who hath traveled Holland and observed the number and vicinity of their great and populous towns and villages with the marvellous improvement of almost every foot of ground, that they properly with this in numbers of people. They send abroad the best of their own butter, into all parts, and buy the cheapest out of Ireland or the North of England for their own use."

As England exacted a heavy duty on butter, and freight had to be paid both ways, the exchange proves the great superiority of Holstein-Friesian butter, and the same was true of cheese.

The Dictionary of Commerce, Etc., by J. R. McCulloch, London, the best authority of that time says on page 254, Vol. 1, American edition, 1856, article on butter, "That of England and Holland is reckoned the best. The salt butter of Holland is superior to that of every other country, large quantities of it are annually exported. It forms about three-fourths of all the foreign butter we import."

The reference to "salt" butter is because much of the butter made in England is not salted.

A table of reports of Custom duties of Great Britain on butter from 1801 to 1832 follows, which shows that during that period nearly 191 times as much butter was imported into that country from Holland as from the Islands of Jersey, Guernsey, Alderney and Man combined.

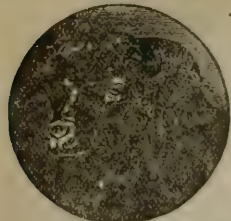
Notwithstanding such facts, some persons from lack of information or a less creditable reason, say that Holstein-Friesians are not good butter cows. I have used early records to prove that these cattle won fame as the best dairy breed long ago, and I intend to prove that they have maintained that reputation and bid fair to keep it; also because albumenarine and other counterfeits of butter were unknown, and cows go' cred only for what they produced.

Those interested will do well to watch this advertisement from month to month, as it will contain valuable information on the subject.

I am prepared to furnish the best Pure-Bred Holstein Friesian Cattle from a single calf to car load lots, every animal guaranteed as represented.

For further information write me or visit Hygeia Farm, Caveseville, Albemarle county, Va.

SAMUEL ADAMS ROBINSON, M. D., Prop.



Highest Value For Spring Lambs!

If you are looking for a good market for your
Spring Lambs, Ship them to me.

I guarantee Highest market values. If you have any kind of Live Stock to sell ship it to me. I can please you. Write me for my weekly market letter. It is free for the asking. My quotations are ACCURATE on all kinds of stock. Accurate and truthful information is worth a great deal to a live stock shipper. I make returns day of sale. I have every convenience for the handling of Live Stock and pay strict Personal attention to the sale of every animal. Give me a trial and be convinced.

P. O. Box 294.
Residence Phone 5659.
Office Phone 993.

Address:

ROBERT C. BRAUER,
Commission Salesman of
Cattle, Hogs, Sheep, Lambs and Calves.
Union Stock Yard,
Richmond, Va.

3. Can you give me the formula of a good remedy to keep on hand for a horse subject to flatulent colic?

JOHN L. NEVINS.

Loudoun Co., Va.

11 Hen manure (fresh) average sample, Nitrogen, 1.10%; Potash 0.56%; phosphoric acid, 0.85%.

2. We have so fully discussed this subject during the fall and winter months that we cannot usefully say more than to refer you to what we have written. It is a very mistaken notion to suppose that freezing and thawing weakens the land. On the contrary, this action makes available the mineral plant food in the soil and improves the physical and mechanical condition of the soil.

3. Probably as good a domestic remedy as can be had is baking soda in doses of from 2 to 4 ounces. If this fails to give relief, give carbonate of ammonia in half ounce doses every half hour until relieved. If this be not available or fails, give chloral hydrate. Dose, 1 ounce in half a pint of water. A physic of Barbadoes Aloes, 1 ounce, should be given as soon as the pain is relieved to work off the cause of the attack.—Ed.

PRESERVATION OF SHINGLES.

In the January issue I see the question, "What is the best preservative for shingles?" The best I know is simply crude petroleum. A few days after the roof is put on (in order to have the shingles dry), go over the roof and put the oil on with a white-wash brush. Begin at the top so that the waste may be absorbed by the roof, and give it a good coat. Then in about a month afterwards, give it another coat. And if the man who does it thoroughly lives long enough to see the need of a new roof, he will be an older man than I am, and I am now 84.

P. NORTON.

Thomasville, N. C.

DISEASED SHEEP.

I have a flock of sheep which I have been running in a woods pasture all

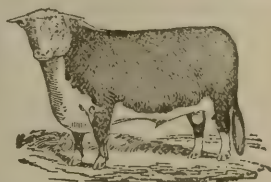


ACTOR 26th, 1925-28

INGLESIDE HEREFORDS

Owned by S. W. Anderson, Blaker Mills, Greenbrier county, W. Va.

A choice lot of BULLS, COWS, and HEIFERS for sale. Also a few POLLED HEREFORD BULLS recorded in the National Polled Hereford Records. Write for catalogue and prices. Farm near Alderson, W. Va., on the C. & O. R. R. Telegraph and Telephone office, Alderson W. Va.



Grand Champion Prince Rupert, No. 79559.

HEREFORD CATTLE

HIGH CLASS HERD.

PRICES VERY REASONABLE.

EDWARD G. BUTLER, "ANNEFIELD FARMS,"
Berryville, Va.

Best English and American strain
BERKSHIRE HOGS.

HEREFORDS

ENTIRE
HERD.

DORSETS.

Sold to settle Estate.

H. ARMSTRONG, Lantz Mills, Va.



BE SURE IT'S MADE IN
SAGINAW



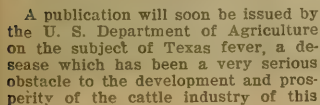
When your dealer shows you a low-down farm wagon ask him the question: "Is it made in Saginaw?" If it is—buy it, you can't make a mistake—you can't buy a better one—there's no other that is really as well made and serviceable as the

FARMERS HANDY WAGON

made in Saginaw. All good things are imitated and that's why we lay so much stress on the point that you make sure it's made in Saginaw. We have made them for 13 years and made them so good we can't improve them now. We guarantee them for 5 years and they practically last a life time in that time think of the saving in high lifting, draft, repairs, etc. Made with wood or steel wheels. Catalog free.

FARMERS HANDY WAGON CO., SAGINAW, MICH.

Branches, Kansas City and Des Moines.
Also makers of Farmer's Hay and Stock Racks and All-Steel Frame Silos. Catalog free.

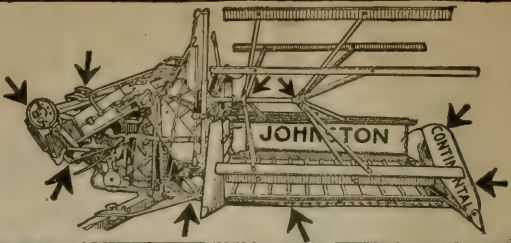


country, especially in the South. Some years ago it was conclusively proven by the experts of the Bureau of Animal Industry, after extensive investigations, that this disease, which is also known as splenic fever and Southern cattle fever, is transmitted by the cattle tick, and that without this Texas fever tick there would be no Texas fever. Later experiments have been made with the object of determining the best methods of eradicating the ticks and preventing the disease. The results of these various investigations are presented in Bulletin No. 78 of the Bureau of Animal Industry. The Bulletin contains valuable information for stockmen concerning practical methods for eradicating the Texas fever tick from both the animals and the pastures, and also describes measures to be adopted for the prevention and treatment of the disease itself.

The cattle tick is not only the carrier of the Texas fever infection, but is a parasite which deprives cattle of much blood, retards growth, reduces the milking capacity, and induces an irritable state known as "tick worry." It therefore becomes manifest that the extermination of this tick will be of the greatest advantage to the profitable raising and feeding of cattle in the infested district. This territory has been carefully studied and a quarantine line established which extends across the country from the Atlantic to the Pacific.

It is well known that the animals coming from below this line and sold in the northern stockyards bring an average of one-fourth to one-half a cent less per pound than the quoted market prices. If we allow an individual weight of 600 pounds for all classes of animals including stock beef, and dairy cattle, there is a decrease in value of at least \$1.50 per head for the estimated 750,000 southern cattle annually marketed under these conditions, which amount to a loss of \$1,057,500 each year. This decreased value reacts and fixes the valuation of all cattle which remain in the infected territory. Thus, it is estimated that there are in the quarantined area four and a half millions of cattle east of the Mississippi and eleven million west of that river, which at a reduction of \$1.50 per head will give the enormous shrinkage in value of \$23,250,000, directly chargeable to the cattle tick. This should be regarded as an unnecessary reduction in the assets of the infected country.

The above figures do not include the decrease in flesh and lack of development of the infested animals, nor of the expense of the Federal, State and local governments for enforcing the quarantine regulations. The shrinkage in the milk production of cattle harboring many ticks will average one quart per day, and the loss occasioned at 3 cents per quart for the \$75,000 ticky dairy cattle out of more



The Binder YOU Want

Why Because it does the work just as you want it—just right. It cuts, reels, elevates and binds any kind of grain on any kind of ground; handles down and tangled grain perfectly and is light in draft. It represents 23 years of experience in binder building and practical use in the field. That proves the

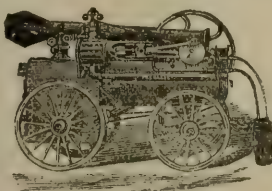
JOHNSTON CONTINENTAL BINDER

is not an experiment. As practical use has suggested improvements, they have been added—then tested—then perfected—until we have produced a binder THAT DOES THE WORK RIGHT. WHY? Because its elevators can't clog—they're self-adjusting to light and heavy grain; its knocker is gear driven—never fails to work; reel is gear driven and adjustable to all conditions; levers are all right-hand; all canvasses have tighteners with wood bearing boxes that can be easily replaced. Send for our free catalog and get ALL the good points—reasons why it is the binder to buy.

THE JOHNSTON HARVESTER CO., BOX 811, BATAVIA, N. Y.

Ties every bundle without waste

Continental Elevates all the grain without waste



The WATT PLOW CO.

Richmond, Va.

Saw Mill Outfitters.

Geiser and Huber Engines.

Geiser, American and Lane-Mills.

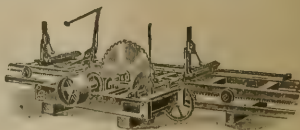
SIMOND'S & HOE INSERTED TOOTH SAWS.

Wheelbarrows,

Dump Wagons,

Wheel and Drag

Scrapers, Shovels, Etc.



THE WATT PLOW CO.

What You Gain

In a few words, you gain this by using a Tubular: (1). One-quarter to one-half more cream, because Tubulars skim by centrifugal force, which is thousands of times stronger than the force of gravity that makes cream rise in pans. (2). One-half to twice as much for butter, because Tubulars remove dirt and bacteria, thus making gilt-edge butter possible. (3). Half the work saved, because you finish skimming five minutes after milking, feed warm skimmed milk at barn, and have only the can of cream to care for. Write today for catalog W-290. It tells all plainly.

THE SHARPLES SEPARATOR CO.

TORONTO, CAN. WEST CHESTER, PA. CHICAGO, ILL.

Sharple's
TUBULAR
CREAM SEPARATORS

than 4,000,000 dairy cattle below the quarantine line would amount to \$26,250 per day, or, counting 300 milking days of each cow to the year, to \$7,875,000 annually. It has also been calculated that approximately 387,500 animals die each year of Texas fever, and at an estimated value of \$15 per head this means a loss of \$5,812,500 per annum.

If all these losses are taken into account, it will be seen that Texas fever is responsible for a loss of about \$40,000,000 annually to the stockmen of this country. These appalling losses and annual sacrifices of the cattle raisers, it is believed, can be effaced in time by methods outlined in this publication, and at a small proportionate cost, for, with the general application of the measures described, the cattle tick may be wholly exterminated. Every dollar wisely expended in this work will be returned many fold during each succeeding year.

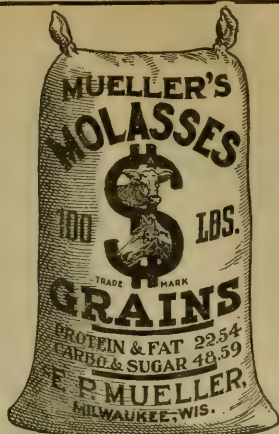
One of the difficulties encountered by the cattle raisers in fighting the plague is in confusing the Texas fever tick with the various other ticks occasionally found on cattle, but which are entirely harmless so far as the transmission of the disease is concerned. For this reason, a brief popular description of the various ticks found on cattle, together with colored illustrations showing their appearance in different stages, is contained in this publication.

The Department of Agriculture has just issued the annual regulations for the prevention of the spread of Texas fever, effective February 1. On and after that date cattle are not allowed to be moved from the quarantined area to other parts of the country, except by rail for immediate slaughter and under certain conditions prescribed in the regulations.

Most of the cattle in the Southern States are immune to Texas fever, but as they are infested with ticks, they disseminate the disease, which is very destructive to other cattle. It is therefore necessary to observe strict regulations during the greater portion of the year to prevent the spread of the infection to non-infected areas, as serious losses would surely follow.

During the winter months the danger of infection is so diminished that cattle are permitted to be removed from the quarantined area under less stringent regulations than at other seasons of the year. The open season applies during the months of November, December and January to all localities, and for the States of Virginia and North Carolina the time is extended to March 15.

The quarantined area for 1906, as prescribed in the regulations just issued, includes the following territory: The whole of the States of Arkansas, Louisiana, Mississippi, Alabama, South Carolina and Florida, the Indian Territory, all of Georgia, except a few northern counties, the Southern half



Feed Mueller's Molasses Grains

instead of oats, corn, meal and milfeed if you want to increase the flow of milk in your cows at least one third, and put more flesh, life and energy in your horses than you ever imagined.

You can do this at less expense than your feed is now costing you, and is fully worth your consideration.

Mueller's Molasses Grains is a rich palatable grain feed for all kinds of stock and is very reasonable in price considering its value. It's made of Dried Brewers Grains, Malt Sprouts and Molasses, three of the richest and most palatable of food products, and can be fed in large quantities or for any length of time with perfect safety.

Mueller's Molasses Grains is a complete feed with the addition of hay or other long feed, but being richer than either of the above feeds it requires less and yields more.

Try it—do it To-Day. Booklet, Sample and price furnished upon request.

Here is what other feeders think of it:

From F. F. Rennie, President Rennie Dairy Co., Richmond, Va.

Dear Sirs.—This is to certify that I have been using Mueller's Molasses Feed since last April, and have found it good feed. I also had the late chemist to make an analysis of it, which showed me more protein and fat than the manufacturer or seller of same claims for it.

(Signed) F. F. RENNIE.

From Joseph Lasitter, Proprietor Richmond Hazard Richmond, Va.

Gentlemen—I have been feeding Mueller's Molasses Grains for the past year and I am convinced it is all you claim it is—a straight balanced ration. Please send me another ton of it as soon as possible.

Anything I can do to advance the sale of it in this section I will be pleased to do.

Yours respectfully,
JOSEPH LASITTER.

S. T. BEVERIDGE & CO.,

Crain, Hay and Seed Dealers,

1217 E. Cary St.,

Distributors,

Richmond, Va.

DEMING Power Spraying Outfit

A light, simple, practical gasoline engine outfit that sells at a reasonable price. Experienced fruit growers pronounce it by all odds the best power sprayer made. Entirely self-contained, ready for attaching hose, and easily mounted on wagon bed or tank wagon. Just the thing for the large operations of farmer, orchardist or park superintendent.

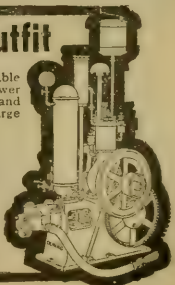
Send For Free Catalogue

of all sprayers, **Barrel, Bucket, Knapsack, Hand, Field, Etc.** Our line of sprayers is known everywhere for their efficiency and nice adaptability to all uses. Be sure to investigate before you buy.

THE DEMING COMPANY, 100 DEPOT ST., SALEM, O.

A Deming outfit solves your spraying problems.

SYDNOR PUMP & WELL CO.,
Southern Agents, Richmond, Va.



of California, the southeastern half of Oklahoma, the eastern half of Texas, the southern half of Tennessee, a few counties in southeastern Kentucky, the eastern three-fourths of North Carolina, and the southeastern part of Virginia.

Southern cattle which are properly dipped or otherwise satisfactorily treated under Government supervision and freed from ticks may be shipped without restrictions.

In some of the States and Territories which are quarantined on account of this disease the local authorities are putting forth efforts to exterminate the ticks which infest the cattle. The work is mainly conducted in localities contiguous to the quarantine line, and when the cattle ticks are eradicated from a given district the quarantine line is changed and shipping restrictions are removed.

Copies of the above-mentioned bulletin and regulations may be obtained from the Chief of the Bureau of Animal Industry, Washington, D. C.

SELECT YOUR SEED CORN NOW.

F. B. Mumford of the Missouri Agricultural College calls attention to the fact that farmers might, with greater profit, select seed corn before spring work begins. Numerous investigations, he says, have shown that in the average year, a Missouri corn field has seventy-five per cent. of a stand. That is to say, a Missouri farmer will plant and cultivate 100 acres of corn and harvest 75. The cause of this is poor seed. He offers this simple method of testing seed corn: Put several old newspapers in the bottom of a box and wet them. Then spread a white cloth with checkerboard squares on top of the paper, each square being numbered. Now number the ears to correspond with the squares. Take three grains from each ear and place them on the cloth in the square bearing the same number as the ear. Put another cloth on top of the grains and place the box in a warm place. In four or five days they will have sprouted. Now start with ear one. If all three of the grains from that ear have sprouted vigorously, it will do for seed, but if the grains fail to germinate or show weak and spindling sprouts, throw the ear aside, and so on for every ear. In this way, almost a perfect stand can be secured which means a much larger yield per acre.



THROW IT AWAY!!

WHY will you persist in spending your money, losing valuable time, as well as the services of your horses or stock, by trying to cure their ailments with some of the many worthless liniments you know nothing about? If you want results, throw away the imitations that have been forced upon you, and get a bottle of the genuine and original

YAGER'S CREAM CHLOROFORM LINIMENT

The best and most successful liniment for man or beast; the one that is mostly imitated; the one that will cure contraction of the muscles, lameness, swellings, curbs, stiff joints, rheumatism, weakness of the joints, bruises, sprains, wind galls, frost bites and all other complaints that require external treatment. It is the only liniment that never disappoints. Your merchant has it, or will get it for you if you insist upon having Yager's and refuse to take anything else.

LARGE BOTTLES 25 CENTS.

GILBERT BROS. & CO., Makers, BALTIMORE, MD.

Where to Sell Your WOOL

We are the Leading Dealers in the Wool Trade in Virginia.

HIGHEST MARKET PRICE PAID, and no Commission charged, only freight charges deducted. SACKS FURNISHED FREE. Checks remitted promptly. Correspond with us when ready to sell.

WALLERSTEIN PRODUCE CO., 19 and 21 S. 13th St., Richmond, Va.

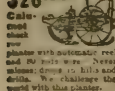
References: American National Bank and Richmond merchants generally.

The South Side

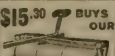
HUCK, AND PEACH BASKETS,
South Side M'fg. Co.,
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One-Three Corn, 1440 and 1600 bushels. Drops in 10 min. and falls 12 acres a day. Just the thing.



Calculation: one planter with automatic feed and 100 bushels per acre. 1000 bushels in 10 days and 100 bushels in 10 days. No. 100 bushels in 10 days. No. 100 bushels in 10 days.



Two section steel wheel roller. 7 ft. 3 section. 11 ft. 3 section. 14 ft. 3 section. 17 ft. 3 section. 20 ft. 3 section. 23 ft. 3 section. 26 ft. 3 section. 29 ft. 3 section. 32 ft. 3 section. 35 ft. 3 section. 38 ft. 3 section. 41 ft. 3 section. 44 ft. 3 section. 47 ft. 3 section. 50 ft. 3 section. 53 ft. 3 section. 56 ft. 3 section. 59 ft. 3 section. 62 ft. 3 section. 65 ft. 3 section. 68 ft. 3 section. 71 ft. 3 section. 74 ft. 3 section. 77 ft. 3 section. 80 ft. 3 section. 83 ft. 3 section. 86 ft. 3 section. 89 ft. 3 section. 92 ft. 3 section. 95 ft. 3 section. 98 ft. 3 section. 101 ft. 3 section. 104 ft. 3 section. 107 ft. 3 section. 110 ft. 3 section. 113 ft. 3 section. 116 ft. 3 section. 119 ft. 3 section. 122 ft. 3 section. 125 ft. 3 section. 128 ft. 3 section. 131 ft. 3 section. 134 ft. 3 section. 137 ft. 3 section. 140 ft. 3 section. 143 ft. 3 section. 146 ft. 3 section. 149 ft. 3 section. 152 ft. 3 section. 155 ft. 3 section. 158 ft. 3 section. 161 ft. 3 section. 164 ft. 3 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GET READY FOR HARVEST Do It Now

The Way to Get Ready for Harvest

It is not enough to grow a good crop.
You have to harvest it, before you get your profits.
And your profits now depend very largely upon the way you harvest it.

A worn-out harvesting machine, or one that is not very good, even when new, may delay you long enough and waste enough grain, to turn your profits into loss.
It is a mighty poor policy to grow a good crop of grain and then let a part of it rot in the field.
It does not take a great deal of waste to eat up all your profits.

It may be only a spoonful of grain at a time, but it counts.
Don't waste.

You can't afford it, and there is no necessity for it.
Get ready for a profitable harvest.
Do it now, while you have time.

Here is the way:
Go to an International Harvester Company of America dealer and ask him for a catalogue of the machine he handles.

He will be pleased to give you the book—and you will be pleased to get it.

He will be pleased to show you the machine—and you will be pleased to see it.

You will find the book extremely handsome, well illustrated with good pictures, interesting from start to finish and full of good common sense about harvesting machines.

But more important, you will find a good harvesting machine.

That is what you are most interested in for that matter, and costs to you.

We take it that you want a harvesting machine—that you can depend upon to see you through the harvest without break or delay:

—that will save you the greatest amount of time and labor and worry and trouble in the busy harvest days;
—that will harvest the grain you have grown with the least possible waste;

—that will not go to pieces after cutting a few hundred acres.

—that will be easy on your team;

—that you can get repairs for easily and quickly when you need them;

—that will, in short, give you thorough satisfaction in every way—doing for you everything that you can in reason expect a harvesting machine to do.

If that's what you want, all the more reason for looking up the agents of the International line.

You know the line—six leading makes of harvesting and haying machines used wherever grain and grass are grown:

CHAMPION, DEERING, McCORMICK,
MILWAUKEE, OSBORNE, PLANO.

Better harvesting and haying machines cannot be made.

As good harvesting and haying machines cannot be made without such facilities as the International Harvester Company possesses.

Such facilities are made possible only through the co-operation of the manufacturers of these several lines of machines.

It is co-operation which enables them to produce from forest and mine their own raw materials—and thus be independent of uncertain and fluctuating markets. Acting together, they own, control and operate their own coal and iron mines, their own coke ovens and steel mills, their own lumber camps and saw mills. They not only get their raw materials of first quality, but what is of equal importance they get them when they want them.

It is co-operation which enables them to maintain experimental shops where every effort is made to perfect the principle and improve the design of the International Line.

It is the great demand for their machines which enables them to equip their factories with every possible facility for producing machines of the highest excellence—factories and workmen which could not by any possibility be maintained to supply a small demand.

It is this demand which enables them to maintain agencies almost everywhere where grain is grown—convenient to you—convenient to buy—convenient to secure repair parts.

The fact that so many farmers cannot be persuaded to buy any other—the fact that so many farmers continue to buy them—the fact that they are considered the standard wherever grain is grown in every part of the world is sufficient indication of their reputation and their reliability.

We don't believe that you will be willing to let harvest time approach without knowing more about the International line for 1906; we know you will be glad to get the catalogue. Cass on your dealer at your very first opportunity.

Go to the dealer now, and get whichever catalogue you want.

If you don't know an International Dealer—write to us for the name and address of the one nearest you.

INTERNATIONAL HARVESTER CO. OF AMERICA

(INCORPORATED)

CHICAGO, ILLINOIS

International Line:—Binders, Reapers, Headers, Header-Binders, Corn Binders, Corn Shockers, Corn Pickers, Huskers and Shredders, Corn Shellers, Mowers, Hay Tedders, Hay Rakes, Sweep Rakes, Hay Loaders, Hay Stackers, Hay Balers, Knife Grinders, Gasoline Engines, Pumping Jacks, Manure Spreaders, Weber Wagons, Columbus Wagons, Bettendorf Wagons and Binder Twine.

NATURAL INCUBATORS.

Editor Southern Planter:

We all have our preferences—Hen mothers come nearer my idea of successful incubation than the great number of artificial hatchers that are now upon the market. I do not know if it is so much the fault of the machine, or of the one running it, that so few chickens are raised, and that those few look so motherless and imperfect. Certain I am that good hens can be depended upon to do their part toward bringing up the little chicks we poultry people are so anxious about just at this season of the year.

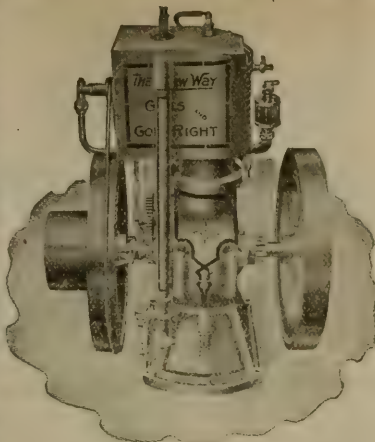
Hens love quiet quarters, and are partial to dark places, and always select clean places for their nests. Knowing this, one poultry woman of my acquaintance had a room that was once used for wood transformed into a setting room for her hens. She begins by setting a lot of barrels up at intervals and filling them half full of chips, wood, or other clean material. Upon this some clean earth or sod is put, and then nesting of grass, such as is found abundantly upon most farms, and known as "hen grass." The door of this room is shut and a small opening made so "biddy" can go in and out at will. When the hens are through laying and show signs of broodiness, the nesting is renewed and the eggs for hatching given; the usual number, fifteen eggs, being placed under each hen. The trouble now begins. Very many people stop at this point, leaving the hens to do the rest, but this woman spends an hour or so with her sitting hens each morning. She puts a cover over each barrel of wire or of lathes and they are kept on during the three weeks, except when the hens are taken off for their daily rest. About nine o'clock each morning, the covers are lifted and each hen has her choice to get off or be taken off. A good feed of corn is placed upon the floor, also, fresh water. They are allowed to go off wherever they please for a time, and upon their return, the care-taker sees that each hen gets on her right nest, when the covers are replaced and all care of the natural incubators is over until the next morning at the same hour.

Insect powder is dusted into the feathers of the hens and in the nest twice during the period of setting, to insure against vermin. When the chickens hatch, they are left alone with the mother in the nest for twenty-four hours, as they need no food in that time—rest being the requisite. The result of such attention is good hatching with quiet, sensible mothers, such as would satisfy the most pains-taking fancier.

MRS. JNO. F. PAYNE.
Albemarle Co., Va.

Always mention the Southern Planter when writing advertisers.

Here is the "New Way" Air Cooled Gasoline Engine.



"THE FAN KEEPS IT COOL."

LLOYD R. PEERY, Eastern Sales Agent.

SIX REASONS WHY

YOU SHOULD BUY IT:

- 1.—No Water Tank to empty and fill daily in freezing weather.
- 2.—No water to freeze and break water jacket or cylinder and thereby cause a large expense for repairs.
- 3.—No water to form lime in the water jacket and obstruct circulation.
- 4.—No cylinder gaskets to leak compress or blow out.
- 5.—No carburetor gasket or carburetor needle valve.
- 6.—The oil from one cup lubricates piston, cylinder and all bearings automatically and with certainty.

The greatest specialty in a gasoline engine for the use of farmers that is on the market.

Write for our Special Introductory Proposition to first purchaser in each county.

Agents Wanted Everywhere. Exclusive Territory. Write for Catalog and Testimonials.

STEPHENS CITY, VIRGINIA.

SPRAY NOW

It will soon be too late.

100 Per Cent. Dividend.

ON THE INVESTMENT IN A

DEMING
SPRAY PUMP

Can be realized by any
FRUIT GROWER.

Best Iron.
Best Brass.
Best Construction.
Simple.
Durable.

Sydnor Pump & Well Co., Inc

Dept. B.

Richmond, Virginia.

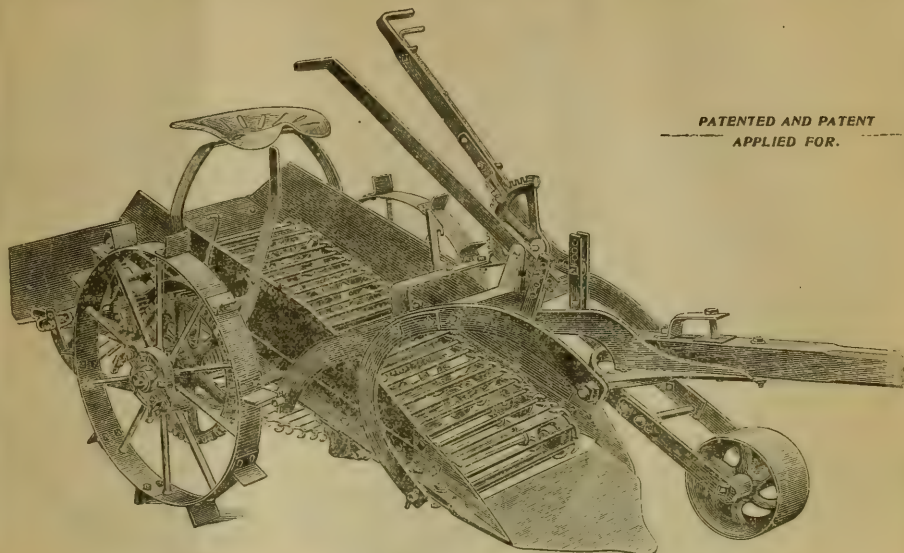
COW PEAS
WE ARE HEADQUARTERS

Can supply BLACK, CLAY, WHIPPOORWILL, NEW ERA, SOUTHDOWN, MIXED.

Write us your wants and we will quote you. Orders have prompt attention at lowest market rates.

WALLERSTEIN PRODUCE CO., Richmond, Va.

Hallock's O. K. Elevator



PATENTED AND PATENT
APPLIED FOR.

POTATO GROWERS

Let Us Tell You *how one man in every potato growing locality where we have no agent may have one of our TWO HORSE ELEVATOR*

Diggers Free. *We also wish to send you such a grade of FARMERS' TESTIMONIALS as you never saw before.*

BAYBORO, N. C., July 5, 1905.

Messrs. D. Y. Hallock & Sons,

York, Pa.

Gentlemen:

The elevator potato digger referred to in our last letter is the Iowden potato harvester manufactured at Prairie City, Iowa. We are very much interested in an elevator digger. We are fully convinced that it is the only successful digger on the market. If your digger is right, and you care to deal with us, we are willing to buy of you. The digger we mention above we know is all right, but has rather much weight and the draft is heavy, but we are convinced that it will pay us well to use the elevator.

Yours very truly,

Cowell, Swan & McCotter Co.

BAYBORO, N. C., Nov. 16, 1905.

Messrs. D. Y. Hallock & Sons,

York, Pa.

Gentlemen:

We have tried the O. K. digger and find it works very satisfactorily. If the digger does as well with our spring crop, where the tops are frequently very rank, we shall, indeed, think we have struck a bonanza in the way of a digger. We want the agency in this section for 1906.

Yours very truly,

Cowell, Swan & McCotter Co.

If you dally and wa you will come in too late. For this most WONDERFUL OFFER goes with the first order only.

Box 802.

D. Y. HALLOCK & SONS,

York, Pa.

A SPECIAL FACTORY FOR A SPECIAL BUGGY.

Did you ever see an IDEA grow into an immense FACTORY.

This new factory was built and equipped by The Ohio Carriage Mfg. Co., of Cincinnati, and it is devoted exclusively to the manufacture of their famous Split Hickory Special Top Buggy.

It is the only carriage factory in the world making one distinct and exclusive style of buggy.

Some others claim to be manufacturers by showing pictures of a big factory, but forget to state just where their factory is located principally because it doesn't exist. Our factories are located right here in Cincinnati at 1992 to 2000 Plum St., and 247 to 253 Stark St., and are open to inspection by you or your friends at all times. It is the only one in Cincinnati and one of the only two in the state of Ohio selling their product direct to the customer.

This is a new plan—the building of one special factory for one special buggy.

The Company started out to make the Split Hickory Special their leader, the best buggy in the world, and they have succeeded in placing it far in the lead of all other buggies.

The factory has 75,000 square feet of floor space. Think of it—seventy-five thousand square feet of factory space given over exclusively to the making of one kind of vehicle!

Before this new factory was built, the Company devoted a part of their general factory to the manufacture of the Split Hickory Special, and were able to make a better buggy than any one else at the price.

But now, with an enormous special factory, having acres of floor space, and more skilled carriage builders than ever before, they are bound to surpass their former record.

On the new plan, The Ohio Carriage Mfg. Co. manufacture at a minimum of cost, using the finest grade of material it is possible to get, and the highest skilled workmanship. Every man is an expert on making this one special buggy. Every piece of machinery in the factory is made for this particular work. Every piece of material is purchased for this special make and style of buggy.

With these trained men—with this special material—and with these special facilities, The Ohio Carriage Mfg. Co., in this Special Split Hickory Buggy at \$50.00, turn out a vehicle that would cost \$75.00 anywhere else. They sell the \$50.00 Split Hickory Special on their 30 Days Free Trial Plan and guarantee every vehicle for two years from the time it leaves the factory.

In spite of the general advance in cost of all raw materials and the higher prices paid their skilled workmen, they don't charge a cent more for the "Special" this year than they did last.

"How Good Buggies Are Made"

I have written a book about buggies which goes into details to such an extent that when you have read it you can tell whether any buggy is worth buying or not. I want to send you this book and our new 1906 Split Hickory Vehicle Catalogue FREE. I want to tell you how we prove that our \$50 Split Hickory Special Top Buggy is as good as we say; how you can save \$25 when you buy direct from us. I want you to know about our big new Factory, devoted exclusively to the making of Split Hickory Special Top Buggies. Thousands of Split Hickory Specials are in use in almost every part of the country. Let me send you testimonials from people right in your own locality, showing what perfect service they are giving; how well pleased they are with them. Let me explain our liberal

30 DAYS FREE TRIAL PLAN

1906
Split
Hickory
Special



\$50

Our 1906 Split Hickory Special has Scramel Iron Wheels, Long Distance Axles, Quick Shifting Shaft Gearboxes, Pencil-Point Houd Springs, Fine Break-Back Humpster Box, Solid Ford Spring Back, Genuine Leather Quarter Top, Genuine Rubber Floor, Long Wheels, and a hundred other special features.

You can use one of our buggies 30 days, and compare it with buggies costing \$5 more. And if not the equal of any \$75 buggy, send it back at our expense. We give a

Two-Year Legal Guarantee

with every vehicle. If you will send me your name and address at once, I will mail you one of these guarantees, also my booklet, entitled "Good Buggies And How They Are Made," and in addition, our new 1906-page Catalogue of Top Buggies, Driving Wagons, Surreys, Phaetons, Carriages, Spring Wagons, Stanhopes, Carts and Harness.

Five minutes of your time, and the cost of a Postal Card or a stamp, puts you in possession of information that will save you many a hard-earned dollar.

H. C. PHELPS, President,
THE OHIO CARRIAGE MFG. CO.,
Station 294, CINCINNATI
OHIO

Don't
buy a
Vehicle
of any
kind until
you get our
New Vehicle
Catalog

We Ship on 30 Days Trial
We Don't Ask for Any Money with Order

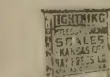
Our
Terms
Are the
Most
Liberal
Ever
Made.



CUT THIS AD OUT

and send it to us and we will mail you from the most complete catalog of vehicles at a business ever printed. The catalog ever made. Don't buy a vehicle or harness until you get our 1906 catalogue and our terms. All vehicles shipped direct from our factory. Prices lowest ever made. Satisfaction guaranteed. Terms and conditions on application.

MARVIN SMITH CO. CHICAGO, ILL.



Lightning Portable WAGON Scale

All above ground. Steel frame, only 8 inches high. Octagon levers. Tool steel bearings. Compound beam. Most accurate and durable. Write for catalogue and price.

KANSAS CITY HAY PRESS COMPANY, 162 Mill Street, Kansas City, Mo.



Water Supply for Country Homes.

Deliver water from spring or stream to house, stable, lawn, storage tank, etc., by the automatic working

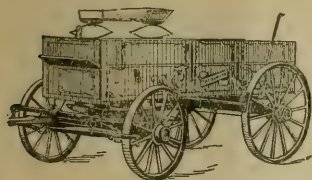
RIFE HYDRAULIC RAM.

Always going without attention. Raises 50 feet for every foot fall 80 per cent efficiency. Large plants for irrigation, equipping towns, rail road tanks, etc. Over 4,000 in use. Catalogue and estimates free.

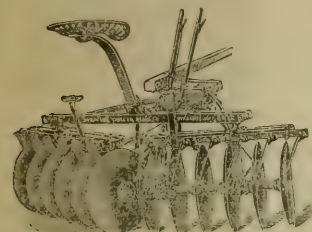
RIFE ENGINE CO., 111 Broadway, New York, N. Y.

Farm Implements and Hardware.

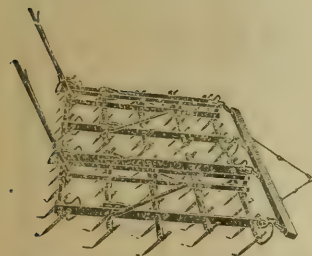
Be sure and write me for prices of any thing needed for farm use.



The Auburn Wagon is too well known to need any comment, I guarantee all sold by me.



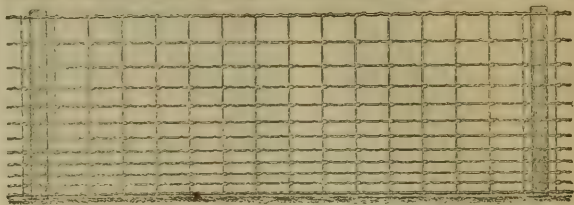
Syracuse Steel Frame Disc Harrow.



Syracuse Spike Tooth Harrow. Each section is furnished with a lever so that the teeth can be set to any angle without stopping the team.

Stands Like a Stone Wall

Turns Cattle, Horses, Hogs—Is Practically Indestructible



AMERICAN FENCE

Buy your new fence for years to come. Get the big, heavy wires, the hinge joint, the good galvanizing, the exactly proportioned quality of steel that is not too hard nor too soft.

We can show you this fence in our stock and explain its merits and superiority, not only in the roll but in the field. Come and see us and get our prices.

List of Some of the Goods I Carry.

Farm and Ornamental Fencing.

Farm Implements.

Farm Wagons.

Harness and Saddles.

Roofing such as V. Crimped,
Tin, Gravel, Amazon Rubber
and Tar Paper.

Galvanized Conductor and
Down Spouts.

Sash, Blinds and Doors.

Hardware and Building
Materials.

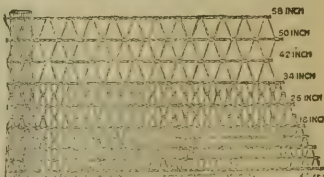
Paints, Oils, Glass, &c.



Heavy Steel Cables

tied together securely with steel wire stays in uniform meshes make the substantial, solid, handsome

ELLWOOD FENCE



It is scientifically correct in every particular. No waste material, no weak places anywhere—no flashiness. **ELLWOOD FENCE** is all fence. It does its duty all the time, holds stock securely, outlasts your neighbor's cheap and wobbly excuse for a fence, and is guaranteed to you by the largest and financially strongest concern in the world in fence manufacturing. There is no reason why you should not have **ELLWOOD FENCE**. There is every reason why you should.

Write My Address in Your Memorandum Book So You May Have It at All Times.

B. P. VADEN, MANCHESTER, VA.
1501 HULL STREET.

Our readers can get a copy of the Company's handsome 1906 Catalogue by sending a postal to H. C. Phelps, President of the Ohio Carriage Mfg. Co. His address is Station 294, Cincinnati, Ohio.

PASTURE FOR SWINE.

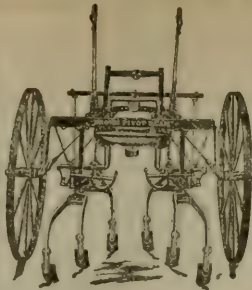
Alfalfa In Connection With Grain Gives Good Results.

H. P. Gumaer, of Lakin, Kan., who raises from 500 to 1,000 hogs every year, says: "These hogs always are raised on alfalfa pasture in summer and alfalfa hay in winter, together with sorghum, supplemented with a little corn or other grain. We breed our sows to farrow in February, March and April so far as we can, so that by the time the alfalfa is large enough to turn onto, the pigs are ready to turn out. When these pigs are four to eight months old they are much sought after by eastern Kansas feeders." Mr. Gumaer does not approve of trying to grow hogs on alfalfa alone. On this point he says: "I have heard much said about raising good hogs on alfalfa alone, with no grain, but I have seen no good hogs so raised. I have known a number of instances where the experiment has been tried, but it always resulted in failure."

As to the amount of grain to be fed in connection with alfalfa to growing hogs, Mr. Gumaer's practice is to feed about two bushels of shelled corn or its equivalent in some other grain to a hundred brood sows suckling pigs and to four-months-old pigs about the same amount of grain to 500 head. He feeds morning and evening, scattering the grain thinly over the ground so that all will have an equal chance at it. Mr. Gumaer says that one objection to the hog grown and fattened on alfalfa alone is that the meat has a fishy taste. In finishing for the market he prefers to take them off the alfalfa pasture entirely about thirty days before they go to market. That Mr. Gumaer has made a success of this plan is evidenced by the fact that while producing in immense numbers he has been able to top the Kansas City market many times.

G. H. Payne of Nebraska reports a gain of thirty-six pounds per head in sixty days on shotes for a half pound per head per day of shelled corn in addition to alfalfa pasture. A lot of twenty-two pure-bred Duroc Jersey gilts fed one pound of ground wheat and corn per head per day, made a gain of 51.2 pounds in the sixty days from Sept. 14 to Nov. 14. Another lot of thirty shotes fed four pounds per head per day of ground wheat and corn and running on alfalfa pasture, made fifty-nine pounds gain per head in sixty days. The increased amount of grain had but little effect in increasing the rate of gain on these growing pigs—J. J. Edgerton, in Farmers' Advocate.

Two Horse RIDING and WALKING CULTIVATORS.

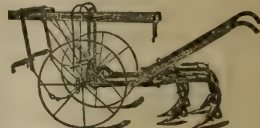


As much a necessity to-day as the Double Shovel was twenty-five years ago.

Farm labor is scarce and improved machinery is more in demand.

Our goods are thoroughly tested by years of use and no line has a more favorable reputation on the market.

Ask your Dealer about them or write us direct and we will send circulars.



BROWN MANUFACTURING CO.,
ZANESVILLE, OHIO.

HENING & NUCKOLS, General Agents, Richmond, Va.



"JONES" FENCES & GATES

last longer than others for the same reason that slate roofs outlast shingles—they're much better to start with. There's no economy in buying a "cheap" fence that is worthless after five winters when you can get the "Jones" that will

Wear 20 to 30 Years.

Big coiled spring wires; heavy stays; locks that do not slip; good galvanizing. Easily put up to stay. Our Catalog No. 8 will help you decide what to buy—contains practical fence pointers. Sent free upon request.

INTERNATIONAL FENCE & F. CO.,
698 Buttles Ave., Columbus, Ohio.

Agents Wanted—Hustlers can make honest money selling "Jones" fences and gates.

CHARTERED 1870.

Merchants National Bank,

OF RICHMOND, VIRGINIA.

Capital, - - - - - \$200,000.00.
Surplus and Undivided Profits, - - - \$740,000.

Depository of the United States, State of Virginia, City of Richmond.

Being the largest depository for banks between Baltimore and New Orleans, we offer superior facilities for direct and quick collections. Accounts solicited.

JOHN F. BRANCH, Pres. JOHN K. BRANCH, Vice-Pres. JOHN F. GLENN, Cashier.
Assistant Cashiers: J. E. FERDUE, THOS. B. MCADAMS, GEO. H. KREBE.

Three Per Cent. Interest Allowed in Savings Department.



O.K. Chase.
St. Louis, Mo.

I AM the paint man. I have a new way of manufacturing and selling paints. It's unique—it's better.

Before my plan was invented paint was sold in two ways—either ready-mixed or the ingredients were bought and mixed by the painter. Ready-mixed paint settles on the shelves, forming a sediment at the bottom of the can. The mineral in ready-mixed paint, when standing in oil, eats the life out of the oil. The oil is the very life of all paints.

Paint made by the painter cannot be properly made on account of lack of the heavy mixing machine.

My paint is *unlike* any other paint in the world. It is ready to use, but not ready-mixed.

My paint is made to order after each order is received, packed in hermetically sealed cans with the very day it is made stamped on each can by my factory inspector.

I ship my pigment—which is white lead, zinc, drier and coloring matter freshly ground, and in an order is received—in separate cans, and in an

other can I ship my Oil, which is *pure oil process* linseed oil, the kind that you used to buy years ago before the paint manufacturers, to cheapen the cost of paint, worked in adulterations.

I sell my paint direct from my factory to user at my very low factory price; you pay no dealer or middleman profits.

I pay the freight on six gallons or over.

My paint is so good that I make this wonderfully fair test offer:

When you receive your shipment of paint, you can use *two full gallons*—that will cover 600 square feet of wall—two coats.

If, after you have used that much of my paint, you are not perfectly satisfied with it in every detail, you can return the remainder of your order and the two gallons will not cost you one penny.

No other paint manufacturer ever made such a liberal offer.

It is because I manufacture the finest paint, put up in the best way, that I can make this offer.

I go even further. I sell all of my paint on six months' time, if desired.

This gives you an opportunity to paint your buildings when they need it, and pay for the paint at your convenience.

NOTE—My 8 Year Guarantee backed by \$50,000 Bond

You Pay No Freight to Try My Paint.

Back of my paint stands my Eight Year, officially signed iron-clad Guarantee.



This is the longest and most liberal guarantee ever put on a paint.

For further particulars regarding my plan of selling, and complete color card of all colors, send a postal to O. K. Chase, St. Louis, Mo.

I will send my paint book—the most complete book of its kind ever published—also *totally free*. Also my instruction book entitled "This Little Book Tells How to Paint" and copy of my 8 year guarantee.

O.K. Chase The Paint Man.
721 Olive Street,
St. Louis, Mo.

A LONG DISTANCE CONCERT.

Sometime ago, the author participated in a musical performance given by two players separated by many miles, with the audience located at yet a third distant point. The author, provided with a head receiver connected to the telephone circuit, and standing before a large horn attached to the transmitter, played on a French horn for the benefit of listeners in the office of the Spokesman-Review, at Spokane, Wash., 726 miles from Salt Lake City, in which place he was located.

The remarkable feature of the performance was that the piano accompaniment was played by a music dealer named Reeves at his store in Helena, Mont., 525 miles away. A transmitter, equipped with a megaphone, was mounted on top of the piano and this player also wore a head receiver.

In playing the Mifere, from III Trovatore, for instance, your correspondent, waiting in Salt Lake City, could hear Mr. Reeves playing the introduction; and then, being well acquainted with the score, knew just when to begin the melody. Then, at the close of the strain, he would listen until the intermezzo had been played on the piano up at Helena, and then begin again. There was not the slightest jar between horn and piano during the entire program, and people listening along the line thought both instruments were being played in the same room. Our correspondent serenaded the adjutant's office at Fort D. A. Russell and the offices of the Cheyenne newspaper 500 miles distant, and one night he got up out of bed at 11 o'clock to serenade the central offices of the company

"Paints that stay Painted."

PAINT is what you need. Do you know that PAINT will preserve and improve your property? PAINT will give your property a prosperous appearance. PAINT will increase the value of your farm. We have PAINT on hand for everything—PAINT for roofs and barns. LYTITE COLD WATER PAINT. Carriage and wagon PAINT Our "Standard" house PAINT is ready-mixed, and for the money no PAINT can surpass it. Write us for PAINT prices and color cards.

JOHN W. ATKINSON & CO.,
Richmond, Va.

ORGANIZED 1832.

ASSETS, \$1,134,647.11

Virginia Fire and Marine
Insurance Company of Richmond, Va.,
Insures Against Fire and Lightning.

All descriptions of property in country and town, private or public, insured at fair rates, on Accommodating terms.
AGENCIES IN EVERY TOWN AND COUNTY.

W. H. PALMER, President.

E. B. ADDISON, Vice-Pres't.

W. H. McCarthy, Secretary.

The YORK Improved Weeder

Every farmer should own a YORK IMPROVED WEEDER. It is the greatest machine on the market for getting rid of weeds without injuring the growing crops. It has every advantage of efficiency and economy over all other weeders—square spring steel teeth, round points, narrow in the body, of great flexibility and won't break. No clogging. Frame is made of strong flexible angle steel; handles and shafts are adjustable. Size, 7½ feet; weight, 35 pounds. Spangler Corn Planters and Grain Drills always give satisfaction—durable, perfect in operation, cheapest. Write at once for our free catalogue.

SPANGLER MFG. CO., 304 N. QUINN ST., YORK, PA.

scattered through the southern part of Utah. General Manager Murray was much interested in these experiments, and afforded every facility in their conduct. When satisfactory connections are made with the Pacific Coast, an effort will be made to serenade the newspaper offices of several coast cities from Salt Lake. It is believed that the experiment could be carried on with success with Omaha, and even points east of that city.

An attempt was made by the telephone engineers to locate transmitters in front of the great organ in the Salt Lake Tabernacle, and reproduce organ recitals at points along the system, but the Mormon Church authorities were not favorable to this, and the experiments were cut short before they had been perfected.

(American Telephone Journal. Feb. 10, 1906.

REPORTS.

U. S. Department of Agriculture, Washington, D. C. Office of the Secretary. Annual reports of the Department of Agriculture for the year ended June, 1905.

Office of the Secretary. Circular 16 Tests of Commercial Cultures of Nitrogen-fixing bacteria.

Bureau of Animal Industry. Circular 30. Suggestions for Construction of a modern Dairy Barn.

Bureau of Entomology. Circular 42. How to control the San Jose Scale.

Bureau of Entomology. Circular 63. Root Maggots and how to control them.

Bureau of Entomology. Circular 68. The tobacco thrips and remedies to prevent "White Veins" in wrapper tobacco.

Bureau of Plant Industry. Bull. 93. The control of Apple Bitter Rot. Bureau of Statistics. Bull. 40. Meat Animals and Packing House Products imported into 11 principle countries.

Bureau of Statistics. Bull. 41. Norway, Sweden and Russia as markets for packing house products. Farmers' Bull. 33. Peach growing for market.

Farmers' Bull. 43. Sewage disposal on the farm.

Farmers' Bull. 235. Cement mortar and concrete preparation and use for farm purposes.

Farmers' Bull. 243. Fungicides and their use in preventing diseases of fruits.

Farmers' Bull. 244. Experiment Station work. XXXIII. Handling seed corn. Methods of feeding poultry. Covered yards for cows, etc.

Farmers' Bull. 247. The control of the codling moth and apple scab. Practical road building in Madison county, Tenn.

California Experiment Station. Berkeley, Cal. Bull. 172. Further ex-

It's Only the Rightly Built Manure Spreader THAT PAYS



Don't get the idea that just any spreader is a good investment. That's a mistake. There are spreaders, some thousands of them, that were as constantly being laid off for repairs that they are never taken out of the shed any more.

Those investments are dead losses. But if you will investigate you need not be bothered with that kind.

How shall you select about finding out? Well, go into the record. Find out about the spreader you are thinking of buying.

—what it is.
—what it does,
—what its record has been.

On these three points we invite the fullest investigation of the Success spreader. We think the whole matter is summarized in them.

What it is. It is the one spreader that literally grows. Every year and feature of it is the result of experience. Nearly 30 years experience in it.

Materials? Largest of all sizes—tough, second growth white ash, frame—steel pin direct drive

chain—heater steel braced to axle—across on three series of rollers—harpoon teeth (new feature) to keep beater ends clear—every part made just as experience has shown to be necessary.

What it does. Handles everything of manure kind and all commercial fertilizers, easier and more satisfactorily than any other spreader. Has room for 4-6 bushels. There are good many thousands of them—nearly as many as all other spreaders combined.

Its the spreader's experience—the one you can get information about by the name.

See that you get the worth of your money. You are willing to pay a fair price for the machine you buy. That's the way the Success is sold.

For that fair price you get in the Success a spreader that is known, that has made its own way, that works right—that is durable. Remember the nearly 30 years experience. It ought to count for something.

Our spreader book will help you. It tells the truth and it's free. Write for it.

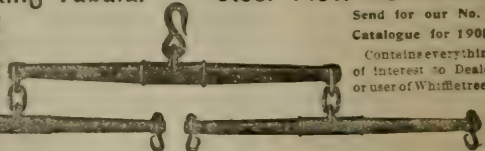
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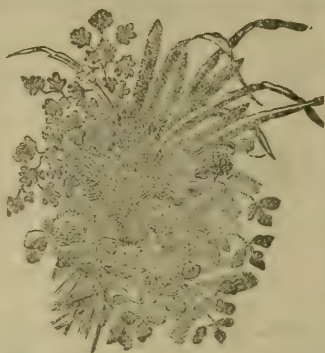
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- perience in Asparagus rust control.
Bull. 173. Commercial fertilizer analyses.
- Idaho Experiment Station. Moscow, Id. Bull. 50. Trap rocks of Palouse region as road material.
- Bull. 51. Alkali and the treatment of alkali lands.
- Bull. 52. Potato Scab.
- Bull. 53. Experiments with wheat and oats for smut.
- Kansas State Board of Agriculture. Topeka, Kan. Report for the quarter ending Dec., 1905. The Corn Book.
- Kansas Experiment Station. Manhattan, Kansas. Bull. 132. Western feeds for beef production.
- Maryland Agricultural College. College Park, Md. Agricultural Quarterly. Fertilizer analyses.
- Minnesota Experiment Station. St. Anthony Park, Minn. Bull. 93. Diptera of Minnesota. Two winged flies affecting the farm garden and household.
- New York Experiment Station. Geneva, N. Y. Bull. 269. Freezing of fruit trees.
- Bull. 270. Commercial cultures for legumes not reliable.
- Bull. 272. Report of analyses of fertilizers.
- Bull. 274. Director's report for 1905.
- North Carolina Experiment Station. Raleigh, N. C. Bull. 193. Spraying mixtures and machinery. When and how to spray.
- Ohio Experiment Station. Wooster, O. Circular 47. Department of Co-operative Experiments.
- Circular 49. Some suggestions relative to alfalfa growing in Ohio.
- Bull. 169. Spraying for the San Jose Scale.
- Circular 52. A yearly programme in entomological practice for the orchard.
- Press Bull. 274. Old tobacco plant beds versus new ones. Light weight tobacco seed compared with heavy.
- Rhode Island Experiment Station. Kingston, R. I. 18th Annual Report.
- South Dakota Experiment Station. Brookings, So. Dak. Bull. 94. Alfalfa and red clover.
- Bull. 95. The treatment of nail pricks of the horses foot.



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J. B. WATKINS & BRO., MIDLOTHIAN, VA.

Virginia Experiment Station. Blacksburg, Va. Annual report 1905. An interesting record of good work well done, with suggestions for extension of work. An example to State officers of what a departmental report should contain.

Bull. 156. Gluten and cotton seed meal with silage hay and stover for dairy cows.

Bull. 157. Silage hay and stover in beef making.

Bull. 158. Milk fever. Its causes, symptoms and successful treatment.

Bull. 159. Soil inoculation with artificial cultures.

Virginia State Board of Crop rest Commissioners, Blacksburg, Va.

Fifth report of the State Entomologist and Plant Pathologist, on the San Jose Scale and the administration of the Crop Pest law, 1904-'05.

Virginia State Farmers' Institute, A. M. Soule, Secy., Blacksburg, Va.

Report of the 2nd Annual session July 12 to 14, 1905. An interesting report of a most successful gathering. A limited number of copies will be available for distribution. Any one desiring a copy will please send 5 cents for mailing same.

Virginia Department of Agriculture, Richmond, Va.

Annual report 1905. Geo. W. Koerner, Commissioner.

Farmers' Bull. 6. Cattle raising in Virginia.

Virginia Weather Service, Richmond, Va.

Report for January, 1906.

Agricultural Dep., West Indies. West Indian Bull., Vol. VI., No. 4.

Sugar Industry.

CATALOGUES.

Peter Henderson & Co., 35 Cortlandt St., New York, Farmers' Manual, 1906. Everything for the lawn. Lawn formation and care.

Kemp and Burpee Mfg. Co., Syracuse, N. Y. Success Manure Spreader. A handsome catalogue fully describing this most useful implement. Makes the manure go twice as far and do twice as much good.

Wallace B. Crumb, Forestville, Conn. The Chain Hanging Stanchion for fastening cows in the stall.

Atlas Portland Cement Co., 30 Broad St., New York City. Concrete construction about the home and on the farm. A very useful publication for a farmer to have. Gives full instructions as to using and fixing concrete.

American Steel & Wire Co., Chicago, Ill. "Fence," a publication on wire fencing.

C. H. Miller, R. F. D. 3, Richmond, Va. Breeder of choice Poland China Hogs.

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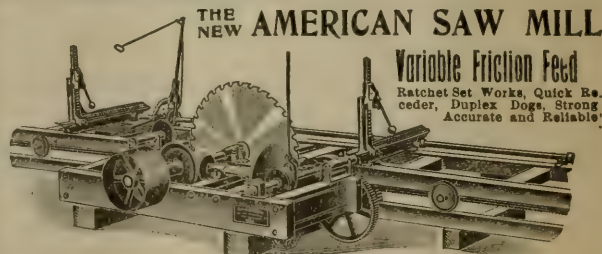
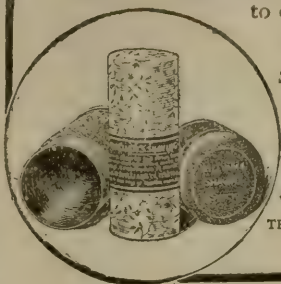
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Variable Friction Feed

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T. M. King, Hagan, Va. Buff Orpingtons Bronze Turkeys, and Pekin Ducks.

Imboden Harrow & Roller Co., Cleona, Pa. Improved Harrow.

PAMPHLETS.

Orange culture. Published by German Kali Works, 93 Nassau St., New York.

"IRON AGE" POTATO MACHINERY.

We beg to call the attention of our readers to the advertisement of the Bateman Mfg. Co., on another page in this issue. In addition to their well known line of cultivators, harrows, etc., they are making a specialty this season of their potato machinery, planters, cultivators, sprayers, diggers.

They have a very beautiful catalogue which they will take pleasure in sending to all who request it. Address, The Bateman Mfg. Company, Box 167 B., Grenloch, N. J.

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The proprietor of the Elkton Stock Farm, Forest Depot, Va., D. Meschendorf, of Louisville, Ky., recently visited the Lafayette Stock Farm and purchased the fine imported Percheron stallion, "Maximum," for the sum of \$3,000. "This is one of the grandest Percheron stallions in America to-day, and the people of Forest Depot are to be congratulated upon having such an excellent stud horse in their community.

I most highly recommend your GOMBAULT'S CAUSTIC BALSAM. We used it for snake bite. I have found it to work like a charm, and in short, would say it is the best I have ever had. It is fine.

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How They Manage a 200 Acre Place in England.

(From the London Daily Graphic.)

One of the most remarkable farms in existence is Brockwell Farm, near Aylesbury. It is situated in charming country, overshadowed by the Chiltern Hills, and consists of 320 acres. A portion of this is let off for shooting, leaving a farm of 200 acres.

It was originally owned by a Capt. Scott, and is now carried on entirely by his six daughters and two sons. The family of lady farmers do every part of the agricultural and dairy work, ploughing the land, making their own hayricks, and despatching their dairy produce to market. On butter making day, Friday in each week, the sisters are astir as early as 3 o'clock in the morning, and all the butter is made before breakfast. Each member of the family has been well educated, and every one plays some musical instrument, so that the evening hours at Brockwell farm are anything but dull. Probably nowhere in England could there be found the equal of this farming family.

It is interesting to have evidence that women can actually manage and work satisfactorily in farming enterprises, especially as, owing to the efforts of Lady Warwick and others, a number of young girls are now being trained for this occupation.

CATCHING PICKPOCKETS.

The Sharples Separator Co., of West Chester, Pa., have a man in almost every town who makes it his business to catch pickpockets. Strangely enough, these pickpockets are always caught robbing themselves—and are always farmers or dairymen. The Sharples Separator Company's men do not send these convicted self-pickpockets to jail, but show them how to make more money. They prove to them that, if they have not a famous Sharples Tubular Cream Separator, they are picking out of their own pockets one-third to one-half of the profits they should make from their milk—that they are, in fact, losing one-third to one-half their cream. These men can convict you of robbing yourself. We suggest that you write the Sharpless Separator Co., of West Chester, Pa., about this, at the same time asking them for catalogue No. 290.

Louisa County, Va., Jan. 9, 1906.

Farming in Virginia without the Southern Planter is like a ship at sea without a rudder.

ALEX CARPENTER.

Wake County, N. C., Jan. 4, 1906.

From what I have seen of the Southern Planter, I think it heads the list of agricultural papers.

HOWELL COBB.



Increase Your Yields
Per Acre"

Head High Tobacco

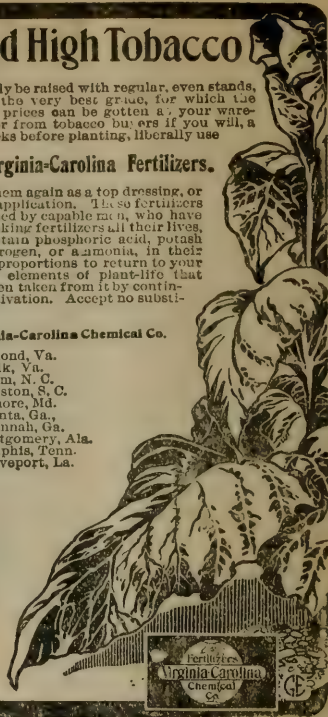
can easily be raised with regular, even stands, and of the very best grade, for which the highest prices can be gotten at your warehouse, or from tobacco buyers if you will, a few weeks before planting, liberally use

Virginia-Carolina Fertilizers.

Use them again as a top dressing, or second application. These fertilizers are mixed by capable men, who have been making fertilizers all their lives, and contain phosphoric acid, potash and nitrogen, or ammonia, in their proper proportions to return to your soil the elements of plant-life that have been taken from it by continual cultivation. Accept no substitute.

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Factory prices. No middlemen's profits. Investigate our fair selling plan.

It's the low-down separator (just belt high) that has a three-piece bowl that can never get out of balance. In all the separator world there is nothing to equal the Davis for convenience, for nice, close skimming, for easy running and easy cleaning. Don't buy without having our money-saving Catalog No. 126. It's free. Write for it to-day.

Davis Cream Separator Co.,

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WILL MAKE YOU MONEY.

The attention of every swine-raiser or farmer is directed to the fact that more money can be made out of hogs than any other animal that can be raised on the farm, because they mature rapidly and are turned into cash sooner than any other animal that can be raised. For these reasons, it pays to give hogs all the care and attention possible in order to get them to market without loss from disease in less time and on less feed, all of which can be accomplished if Dr. Jos. Haas Hog Remedy is fed in time and as directed because when this Remedy is fed, it not only protects against the possible loss from disease and unthriftiness, but pays for itself many times over in feed saved. It has stood the test of almost thirty years before the public which alone is sufficient proof of its merits, and by referring to Dr. Jos. Haas advertisement on another page of this paper you will see that he has such faith in his remedy that he offers to insure hogs and pay for all that die when the remedy is fed according to his insurance proposition, which is fully explained in all of his literature. and in the "Hogology," a book which will be sent free to anyone for the asking if this paper is mentioned. The thirty-day trial offer is also another proof of his confidence in the remedy and it behooves every farmer who wishes to make swine-raising successful to read "Hogology," and take ad-

vantage of this thirty-day free trial offer.

Hyde County, N. C., Jan. 6, 1906.

I have read only two copies of the Southern Planter, and don't see how I can farm without it. It is the best farm paper I ever read.

GEO. P. CARTER.

Forsyth County, N. C., Jan. 3, 1906.

I have certainly enjoyed the Southern Planter very much and regard it, for this section, as one of the very best farm journals published.

Buncombe County, N. C., Dec. 23, 1905.

The Southern Planter is the best paper I ever saw.

J. M. SHOOK.

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THIS offering will comprise pure bred breeding stock, consisting of cows and heifers, also a few young Bulls ready for service and a number of Bull Calves, Pure Scotch and Scotch Topped, representing the blood of some of the most noted Bulls in America.

None but high-class breeding animals will be offered and all females of breeding age are bred to Scotch Bulls of high merit and will offer great advantages to those looking for desirable Short-Horns.

The sale will be positive and without reserve for cash or good bankable notes on six months time.

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F. H. HALL.

An abundant supply of protein in palatable form is necessary for satisfactory growth of poultry. The development of blood, flesh and feathers is very rapid in young birds; and these parts and organs are rich in nitrogenous matters. These can come only from the food of the young chick or duckling.

Under form conditions these indigestible little foragers will supplement their allotted grain ration with grasshoppers, flies, beetles, worms, slugs and other forms of animal life that are rich in protein; but in confinement especially where the flocks are large, the young bird can not secure a sufficient amount of protein, in the limited range of natural animal food that comes their way, to balance up the carbohydrates of the grain. When shut up, also, the birds lack the vigorous exercise that might enable them to utilize large amounts of foods low in protein so that they could secure the needed quantity of this essential requirement for rapid and profitable growth.

The 'cereal grains, especially corn, are very starchy foods; and no combination of them will give a nutritive ratio narrow enough to develop the young bird rapidly. Some supplement must be used. Seeds of the legumes, like peas, beans or cowpeas, are richer in protein; but unfortunately, these foods are not well liked by poultry and will not be eaten in any considerable quantity.

Those materials that are richest in nitrogen are the concentrated by-products; but these products are not, in a way, natural foods. They are refuse materials from slaughter houses, from creameries or from oil mills; parts of grains from starch factories and glucose works, sprouted grains from distilleries and breweries, or other materials whose natural composition has been changed in some way. It is not safe to depend on the content of protein and fat in estimating the food value of such materials for poultry, as may usually be done in case of whole grains. Palatability, constipating or laxative effect, excess or deficiency of mineral matters are all factors that must be considered. The adaptability of such feeds can only be determined by actual trial.

The Station has fed several of these by-products to poultry and finds such marked differences in their effect that the result are well worth presentation.

In the test with ducklings three pens of from 25 to 30 birds were fed

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Outlasts metal or shingles. Any handy man can apply it.

There is only one Ruberoid Roofing, and we sell it. You can verify its genuineness by the name on the label on the under side of every length of Ruberoid Roofing. Send for samples and booklet.

A large stock of Corrugated and V. Crimp Roofing always on hand.

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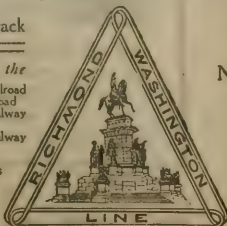
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W. P. Taylor, Traffic Manager

The Gateway
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Fast Mail
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Iron Age Improved Robbins Potato Planter.

After using your Potato Digger the past season to dig about 60 acres of potatoes, I can say it scarcely shows any wear. Like your Potato Planter, Four Row Sprayer and Cultivator, it is built to Work well. It takes less power than any separator machine I have ever used. The separator is nearly perfect. I used this digger all day with one team. Italians, at \$1.25 per day, put the potatoes into 3-bushel baskets for 5¢ out of 4 of a cent a basket and it is a very satisfactory machine.

Yours truly,
Mt. Ephraim, N. J.

H. H. BELL

Makes Potato Culture Sure, Easy and Profitable. Makes labor accomplish more. Makes soil yield more.

THE IRON AGE (IMPROVED ROBBINS) POTATO PLANTER plants 100 per cent. correct & Fertilizer distribution, depth of planting and covering under absolute control.

THE IRON AGE FOUR ROW SPRAYER improves quality and yield of crop by preventing damage by bugs and blight. Automatic pump and dasher. Thoroughly adjustable.

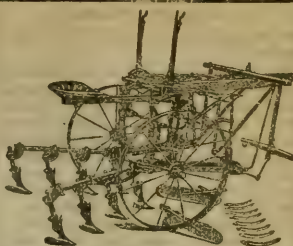
THE NO. 50 IRON AGE CULTIVATOR is specially adapted to the cultivation of potatoes in every condition of soil and crop.

THE IRON AGE POTATO DIGGER is easily operated by two horses. Elevator and shaker attachment for heavy soil and weedy crops. Thoroughly separates potatoes without bruise or injury.

OUR NEW IRON AGE BOOK illustrating full line of labor saving, front making machinery, seeders, wheel hoe cultivators, horse hoes, fertilizer distributors, etc., sent FREE.

BATESMAN MFG CO.,

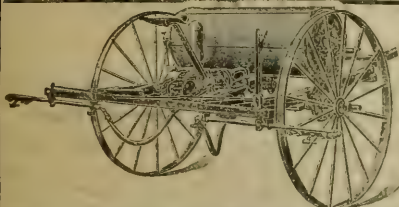
Box 67-4, Greentown, N. J.



No. 50 Iron Age Pivot Wheel Riding Cultivator

I have used your "Iron Age" Digger and have shown it all over my county, and I have not seen a man that was not pleased with it. I consider it the only digger I ever saw and I believe it will save the price of the machine in every 20 acres of potatoes—first, we save 4 cents per barrel in picking up second, it gets absolutely all the potato sand I think at the least calculation there 84 worth of potatoes left in every acre if dug with our old plow.

Yours truly,
Eastville, Va. ARTHUR SAUNDERS.



Iron Age Four Row Sprayer



Iron Age Potato Digger.

ducklings were one week old. Three highly nitrogenous rations were fed, the basis of each being corn meal, green alfalfa and a mixture of four parts cream gluten meal, two parts each of pea meal and low grade flour and one part each of corn meal, wheat middlings and blood meal, with five ounces of salt for every 100 pounds of the mixture and with a liberal allowance of sand.

To this Basal ration there was added about one-third the amount of the by-products to be tested: For Lot I "animal meal" and "meat meal," for Lot II blood meal and bone meal, and for Lot III "milk albumen" and bone meal.

Lot II made much slower growth than either of the other lots, I and III being about equal. The average gain for the birds in these lots in nine weeks was 5-12 lbs., for those of Lot II 4-14 lbs.; but each lot ate almost exactly the same amount of dry matter for a pound of growth. That is, the ration for Lot II was of the same productive value as the other rations, when eaten; but it appeared to be unpalatable so that the ducklings would not eat it freely enough to make a rapid growth.

As for the general appearance of the birds, the ration containing the "milk albumen" was the most satisfactory so birds were concerned, as the plumage

developed more rapidly and evenly under that ration than under "animal meal" and "meat meal;" but the relatively high cost of the "milk albumen" high cost of the "milk albumen" made the ration less profitable to use.

In another test, 40 to 50 chicks in each of 4 pens were fed for eight weeks. The by-products tested were: For Lot I "animal meal," for Lot II "milk albumen," for Lot III gluten meals, and for Lot IV, gluten meals with ground bone to make up any deficiency in ash. The growth of the chicks was slow. Most of them were Leghorns. Lot I on "animal meal" and Lot II on "Milk Albumen" did fairly well, the increase being about equal to the two lots. The chicks of Lot III on Gluten meals gained only one-third as much as those in Lots I and II, and those in Lot IV, with ground bone to supply the ash deficiency of the gluten meals, about two-thirds as much. The gluten meals appeared to be unpalatable, cream gluten meal. The use of anise fenugreek to disguise or flavor the gluten meals resulted in but little better consumption of food. The "milk albumen" here, as with the ducklings, was palatable, being somewhat superior in this respect to the animal meal, and was the more healthful food; but its cost made the ration unprofitable.

It was observed in both these tests, as in many other tests along different lines, that the unfavorable effect of a ration was most marked during the first few weeks of the bird's life. Differences tended to disappear as the chicks or ducklings became older.

It is essential that young poultry be fed rations made up of foods known to be palatable and healthful. Older birds can utilize to better advantage

BOTH MISTAKEN.

An Irish merchant, who had more money in his pocket than his appearance denoted, took a seat in a first-class carriage. The Junior Christian Endeavor World tells the story:

A dandy fellow-passenger was much annoyed at Pat's presence, and missing his handkerchief, taxed him with having picked his pocket. After recovering his handkerchief, which he had put in his hat, he made a lame apology, but Pat stopped him with the remark:

"Make yourself easy, darlint; don't bother about the matter. You took me for a thafe; I took you for a gentleman. We were both of us mistaken, that's all, me honey."

SOIL INOCULATION WITH ARTIFICIAL CULTURES.

(Abstract of Bul. No. 159. Va., Expt. Station.)

The importance, origin and history of inoculating the soil with Nitrogen-fixing Bacteria is discussed. A short account of some investigations along that line, with methods of preparing the media and growing the organisms, is given. Reports from the experiments in Virginia last year showed that 82 per cent. proved profitable.

The Bulletin concludes as follows:
1. Inoculation can be done successfully and profitably where care is taken in observing the proper methods.

2. A conservative course is recommended. The recent wild enthusiasm, using such terms as "vest pocket fertilizer," "acts like magic," etc., are misleading; while any statement that inoculation by artificial culture is a fraud is equally wrong.

3. No amount of inoculation or anything else will make up for an imperfectly prepared seed bed, poor soil, bad seasons and poor cultivation.

4. The result obtained and the cost of preparing do not justify the enormous retail prices of \$2.00 per acre charged by commercial concerns last spring.

5. The Experiment Station will continue to supply farmers of the State with cultures at twenty-five cents per acre. In turn the farmers are requested to give the material a fair trial and report results. Those ordering material are also requested to write name and address plainly, as packages have miscarried and failed of delivery in many instances on account of improper address.

Bulletin may be had on application to Director of the Experiment Station, Blacksburg, Va.

"JONES" FENCES AND GATES.

For many years "Jones" Fences have been considered one of the very best fences on the market. This is only natural, because, in the first place, the manufacturers use nothing but the

FARMERS MIX YOUR OWN FERTILIZERS

By so doing, you can save from \$7.00 to \$10.00 per ton and at the same time know that you are applying to your land the identical plant food which it needs.

Home mixing of Fertilizers is recommended by all the leading experiment stations.

We sell the farmer direct

Nitrate of Soda Nitrate of Potash Sulphate of Potash
Muriate of Potash Kainit Basic Slag

PERUVIAN GUANO

A Complete Natural Manure.

ANALYZING: Ammonia 9%, Phosphoric Acid 9%, Potash 2%

PERUVIAN GUANO, A SUPERIOR BASE F HOME MIXTURES.

Peruvian Guano is a material that commends itself strongly as the best possible base for home mixtures. By its use, the necessity of using a large number of materials in compounding is entirely done away with. Such materials as ground bone, tankage, dry ground fish, dried blood, acid phosphate, etc., are not needed, since the Peruvian Guano furnishes all the plant-food elements furnished by these materials, in choicest forms, and already intimately mixed and combined by nature.

A VALUABLE BOOKLET, "PLANT FOOD PROBLEMS,"

80 pages, FREE FOR ASKING.

THE COE-MORTIMER CO.,
33 BROAD STREET, - CHARLESTON, S. C.

PREPARED LIME THAT CAN BE DRILLED WITH THE SEED.

We are manufacturing a specially prepared Agricultural Lime, packed in 50 lb. sacks. 200 lbs will go as far as 400 lbs. of ordinary air slaked lime; does not heat the seed; can be drilled with it where it will do the most good.

Address **Rockbridge Lime & Stone Co.,**
Lexington, Va.

very best material, and employ none but skilled labor and the most modern machinery. One of the finest features of the "Jones" Fence is the style of lock they use, which is so constructed that it will not slip under any circumstances. "Jones" Fences outlast the average fence by many years, because the galvanizing is the best that can be produced and withstands the influence of the weather.

Our readers will be interested to know that the International Fence Company, who are the sole makers of "Jones" Fence, are putting out a gate, which, in every respect, is the equal of their famous Fence. It is poor economy to put up a good, high-grade fence and finish it off with a poor gate. Our readers will do well to investigate the claims made for "Jones" Fences and Gates before purchasing elsewhere. They may be sure of fair and just treatment; of getting one hundred cents worth for every dollar they spend. Our readers should send for the new Catalogue, which is offered in the advertisement of this concern in another part of this paper.

HE FOUND IT SUPERIOR TO ALL OTHER LINIMENTS.

Mr. E. M. Hoyer, Shreveport, La., writes: "By a veterinarian's request I began to use Sloan's Liniment five years ago, and found it superior to all others that I have tried."

DEMING CATALOGUE.

We are just in receipt of the handsome 1906 Spray Pump Catalogue of The Deming Company, 190 Depot street, Salem, Ohio, whose Sprayers, Nozzles, and "bug-fighting" appliances in general are recognized as the standard by growers everywhere. Their "Universal Verdict," an attractive and well named little booklet, reproduces a number of testimonials received by them during 1905, from customers in all parts of the United States and elsewhere, all of which substantiate the claims of The Deming Company as to the merits of their goods.

With long experience in the manufacture of Sprayers, The Deming Company is well qualified to advise those who may need information on the subject, and they will be pleased to enter into correspondence with any persons who are interested in the most important phase of fruit and vegetable growing, whether they are present or prospective exponents of the spraying doctrine.

Fairfax County, Va., Feb. 6, 1906.

Of the many farm journals to which I am a subscriber, I wish to say that I consider the Southern Planter at the head of the list. I heartily congratulate you on the production of this journal.

J. HARRISON YATES.

HARRISON STRAWBERRIES.

Each season we learn of more and more of our readers who are sending to the Harrison Nurseries, at Berlin, Md., for strawberry plants. They are getting the Harrison habit, as it were. It is a good habit to acquire. As the excellence of Harrison plants becomes more generally known the demand is bound to increase. They have a great new variety this year in the Almo, which has a record of producing a full quart of berries from a single plant. Unquestionably, it is one of the most, if not the most, prolific varieties of strawberry ever grown. All good varieties can be had of them—something like fifty different kinds. Whatever the kind you fancy, if you send to the Harrison people for it, you will receive as strong, thrifty, well rooted plants as it is possible to procure anywhere. They publish a catalogue with full information which comes free for the asking.

An exchange asks: "How much is your wife worth to you, leaving sentiment out of the question? Is she worth a washing machine, a bread mixer, a clothes wringer, a nice carriage and a safe horse?"

An old auctioneer once said that he "would not take a million dollars for his wife, and wouldn't give a dollar for another."—Jersey Bulletin.

The Implement Co.,

1302 Main St., Richmond, Va.

Have Issued a New and Interesting
Catalogue Telling All About the Best

Time, Labor and Money Saving
Farm Implements.

It gives descriptions and prices of

Corn and Cotton Planters,
Wheel and Disk Cultivators,
Farm Wagons, Engines, Buggies,
Surries, Harness, Saddles,
V. Crimp & other Roofing, Barb Wire, Fencing, etc.

Farmers will get the best Farm Implements on the market and save money by sending us their orders. Write for catalogue.

Mailed free on request.

Announcement

A New Firm.

AFTER twenty-eight years in the Harvesting machine business, twenty-two years of which, as General Agent in Virginia and the Carolinas for the McCormick Harvesting Machine Company, and the International Harvester Company of America, I beg to announce to my friends and the general public that I have severed my connection as General Agent for the International Harvester Company of America, and associated myself with the Bache Implement and Seed Company, under the new firm name of **W. K. BACHE & SONS**, at 1406 East Main Street, Richmond, Va.

We will carry a full line of the latest improved Farming Machinery, Gasoline and Steam Engines, Threshers, Saw-Mills, Vehicles of all styles and Harness. I will be pleased to have those who are interested in such goods call and see our stock before purchasing. I thank my friends for their past favors and will expect to see them all at my new location, where a hearty welcome will be extended.

We will handle the Deering Line of Binders, Mowers, Rakes, etc.

PHONE 2530 L.

Very respectfully,

W. K. BACHE.

SUPERB APPLE AND PEACH TREE STOCK.

Any reader who wants this spring to keep some of the good resolutions made during the year on fruit tree planting should begin by dropping a line to the Harrison Nurseries, Berlin, Md., for their 1906 Catalogue. Apples and peaches are the bases of most orchards. Of these such standard, ever popular varieties as Baldwin, Ben Davis, and N. W. Greening apples and Crawford Late, Ray, Reeves, and Wonderful peaches well deserve consideration. We have word from the Harrison people that they are in a position to furnish exceptionally fine trees right now in each of these varieties. We mention these as being Harrison favorites. Of course, they grow about every variety of apple and peach in their 1,000 acre nurseries. Harrison stock is widely known for its excellence—rigor, shapeliness, health, strong rooting. The catalogue is mailed free, and delayed by a government "omitted one in which the need for action is felt. It is a good book to have for anybody who is interested in fruit tree planting.

Campbell County, Va., Jan. 6, 1906.
I must have the Southern Planter.
C. T. BURNETT.

DOES THE SOUTH LACK INVENTORS?

BY MARY WASHINGTON.

To the above question, I would unhesitatingly answer "No." I do not, however, controvert the fact that in times past, the inventive faculty has been more predominant in the North (and especially in the New England States) than in the South. Their unfriendly climate and soil placed them in greater need of labor-saving contrivances than was the case with us, under our smiling skies, and with our troops of slaves. But since the civil war, we have entered on a new era, and we have "kept up with the procession," in the line of making inventions. For instance, all the numerous kinds of machinery needed to utilize cotton seed and turn it into a large variety of useful by products, have been entirely the work of Southern brains and hands, since the war.

But even long before the war, some of the most important inventions were made by Southerners. As a convincing proof of this, I need only allege the case of Rumsey, who was really the inventor of the steamboat, although he never lived to perfect his invention, or to reap any emolument from it. His history is one of the numerous pathetic ones of men who have been amongst the benefactors of their race, but who have been misun-

derstood, neglected, derided, or even in some cases, persecuted. Rumsey was a Marylander by birth, (born 1743) but took up his residence in Virginia and was employed by the Potomac Company to improve the navigation of that river, and this turned his attention to different modes of propelling vessels, and especially to the utilizing of steam for this purpose. He worked at this idea four years before he developed it in natural shape and even then, it was a crude and clumsy thing, but no matter. It was headed in the right direction, and was the starting point from which the modern and perfected steamboat has been evolved. Rumsey died suddenly in Liverpool, in 1792, just as he seemed on the brink of success and prosperity, and Fulton (a native of Pennsylvania) carried out and improved on the invention. I see by a recent paper that Maryland is going to erect a monument to Fulton shortly.

Various persons claim the discovery of anesthesia, and it is probable that the idea dawned simultaneously on the minds of several persons who had no connection nor acquaintance with each other. Dr. Crawford Long, of Georgia, however, seems to have the strongest claim to be considered the Wells, of Vermont, and Dr. Morton, of Massachusetts, both dentists, and the latter at one time the pupil and after-

WEALTH, 59579.

RECORD, 2:10.

Second in race in 2:08 3-4.



Dark bay or brown horse, 16 hands high; weight 1,200 lbs. Sired by Gambetta Wilkes, 2:19½, the greatest living sire, having 184 in the list, of which 14 have records of 2:10 and better. 1 dam Magnolia, dam of Wealth, 2:10, by Norfolk, 3:170, sire of Miss Nelson, 2:11½, and son of the renowned Nutwood, 2:18½. 2 dam Beck Collins, dam of Choctaw, 2:30, grand dam of Wealth, 2:10, and Maggie Campbell, 2:21½, by Woodburn Hambletonian, 1837. 3 dam Rebecca, thoroughbred daughter of Blucher, son of Antonio.

This is rich breeding, and shows that WEALTH traces to rare ancestral lines, while in addition he has grand size, with beauty and elegance of form. When in training, WEALTH could show a terrific burst of speed, and to reel

off quarters in thirty seconds (a two minute gut) was easily within his capacity. A race horse on the track, he has made good in the show ring by carrying off the blue ribbon on different occasions. WEALTH sires fine foals and transmits his own desirable qualities with uniformity.

A Lexington, Ky., Feb 9 h. 1913, 353 horses were sold at Auction and averaged \$301.75, 17 Gambetta Wilkes Colts were included in Sale but averaged \$430, 13 of them averaging \$550.

Fee, \$15 season; \$20 insurance. Address,

S. F. CHAPMAN, Clifton Stock Farm. Gordonsville, Va.

Or Col. W. H. Chapman, Richmond, Va.

DISPERSAL SALE OF TROTTING HORSES

property of Mr. Samuel McMillan, at Millburn Stock Farm, Calvert n. Fauquier county, Va. On account of the sale of the farm, this stock will be sold at public auction on the place, Feb 14, 1906, at 10 o'clock, promising colts and fillies and other stock among them are 1 bred road and driving horse, a s.o. match pair, numbering all told about seventy head. Also a great sire represented by Baron Wilkes, 2:18; Belmont Place, 2:17½; Gov. minor, 2:24; Albert W., 2:20; King Lancelot, full brother to the famous bar Devil, 2:07; Red Wilkes, etc.

The ground mares include Miss Cop land, the grand dam of M. J. Deimar, 1:59½, world's champion trotting gelding; Deception, dam of Flirt, 2:07½ and others.

It also a rare opportunity for breeders and others to obtain high class stock. When desired, a card of nine months, secured by approved notes will be given. For catalogue at press.

N. B.—Calvert is on the line of the Southern Railway, three miles south of Washington, D. C.

Sidney Prince, 32932,

Record 2:21½

by Sidney, 4770 dam Crown P. Int. M-M, by Brown P. Int, 1950 Sire of New-boy, 2:1½ and 7 others in list. Fee \$35 season.

ROD OLIVER, 36169,

cheatnut horse 5, by Electric 1078, dam Lady May, dam of Bonnie 2:19½, etc., by Port Leonia, d, 12953. Fee \$25 insurance.

MOKO Jr.,

Brown horse, by Moko, 2417, the sire of Ferno, 203½, etc. Fee \$25. Insurance.

RED DILLON, 38696,

bay horse 1, by Baron Dillon 17337 dam Zula Lake, by Red Lake, 25988. Fee \$20 insurance. Address,

FLOYD BROS. Bridgetown, Va.

LORD CHANCELLOR 36614,

trial 2:27½, trotting.

Black horse, foaled 1899, 15½ hands, weight 1,100 lbs. Sired by Dare Devil, 2:09 (son of Mambrino King, 1273, and Mercedes, by Calmes, 5348, by Elector, 128).

1 dam Princess May R., by Prince Regent 2:16½, sire of Mombrino King and Estabella by Alcantara, 2:23, by George Wilkes, 2:22½.

2 dam Mary Weston (dam of 3 producers by Mohican, 619).

Note.—Lord Chancellor is a horse of commanding form and handsome proportions.

His sire, Dare Devil, one of the finest horses in America, is owned by Thomas W. Lawton,

the famous Boston financier, who paid \$50,000 for him, for use in Dreamworld Farm stud.

Lord Chancellor is bred to Mambrino King founder of the family noted for wonderful beauty, matchless style and superb race horse quality.

For terms of service and keep of mares address: W. J. CARTER, 1102 Hull Street Manchester, Va.; or P. O. BOX 929, Richmond, Va.

Plain Dealing Farm,

W. N. WILMER, Proprietor.

49 Wall Street, New York.

VIRGINIA CHIEF, 27267,

black horse, 16 hands high, weight, 1,500 pounds. Sired by Kentucky Prince, 1870; Ken Nix, by Messenger Duke, 186.

Fee \$10 season; \$15 insurance.

AEBINER, 30923,

Chestnut horse, 15½ hands, weight 1,100 pounds. Sired by Virginia Chief, 27267; dam Ashina, by Alton, 5332.

Fee \$5 season; \$12 insurance.

PLAIN DEALING, 30921,

Chestnut horse, 15½ hands, weight 1,050 pounds. Sired by Virginia Chief, 27267; dam Barbara, by Alcantara, 729.

Fee \$10 season; \$12 insurance.

DEALING STOCK FARM, Scottsville, Albemarle Co. Va.

JUDGE COX, 22236

Brown Horse, by Phalanx, 8754, dam Kate Messenger, by Messenger Chief, 1825, sire of Coxey, 2:13, etc.

For terms,

E. T. COX, McKenney, Va.

KING JUMBO,

A good individual and promt ing sire, Fee \$5 (keep \$10.00 season); \$15 insurance. O. N. NUCKOL4, owner, Rio Vista, Va.

R. F. D., No. 1.

PLANETEER, 2nd.

See Amer. Trotting Register, Vol. 17

ay horse, 15½, weight 1,100 lbs., by Elector, 125, sire of Arion, 2:07½; Sunol 2:08½; Palo Alto, 2:08½, etc.; dam Planeta granddam of Peko, 2:11; Pedlar, 2:13½, etc.

by Planet, thoroughbred son of Revenue.

Planeteer has good conformation along with fine trotting action and even temper, which he transmits with uniformity.

For terms of service and keep of mares address H. E. GRAVES, Rodes, Va.; or W. E. GRAVES

Lynchburg, Va.

HACKNEY STALLION,

PATRICK HENRY,

Sired by "Squire Riekel," a blue ribbon winner, by add, a great sire of show ring winners;

dam, "Marjorie," a gold medal winner, by "Roseberry," a championship winner at Toronto

Terms: \$5 lesp; \$10. season; \$15. insurance

A. POLLARD & SON, Dunraven Stock Farm,

R. F. D. 5, Richmond, Va.

wards the partner of the former. Dr. Wells' first experiment consisted in trying nitrous oxide gas on himself, in having a molar tooth pulled in 1844, and Dr. Morton used sulphuric ether both on a dental and surgical operation in the autumn of 1846, substituting this for nitrous oxide gas by the advice of Dr. T. C. Jackson, who afterwards contested with him for the credit of having discovered anaesthesia, but Dr. Wells is more entitled to this than either Morton or Jackson. His claims, however, were denied and resisted till he went mad and committed suicide. Dr. Crawford Long never entered the arena, I believe, with the other claimants and never even published his discovery till the others had proclaimed theirs.

Another one of our distinguished ante-bellum inventors was Cyrus McCormick, of Rockbridge county, Va., the inventor of the famous McCormick reaper, which has probably done as much to revolutionize and benefit agriculture as any implement ever invented. It was a case of evolution. First, his father (who possessed remarkable mechanical talent) made an imperfect reaper, which was afterwards perfected by his more gifted son, who also received valuable assistance from his two brothers, William and Leander, so it appears that the reaper was rather the product of the

family than of a single individual, though Cyrus was undoubtedly the prime factor in it. In 1851 the McCormick reaper was introduced into England, where it achieved a signal triumph, and in 1858, a trial of reapers took place in France, in which three American reapers, two English and two French competed, and in this contest, McCormick's reaper was awarded the first prize.

But to come down to more modern times. Mr. John N. Gamewell, of South Carolina, has invented in our own day the fire and police alarm, which is now used throughout the entire civilized world, and which has enrolled his name amongst the benefactors of the race. He has received a medal, both from Russia and France, for his invention. He took up his residence in New York, was made Superintendent of the fire department of the city, and amassed a large fortune from his patents.

Another inventor of the present day is Mr. James Albert Bonsacks, of Virginia, who invented the cigarette machine, which has developed a new industry and added millions to the wealth of Virginia. A few years ago, a Mr. Logan, of Reidsville, N. C., invented a machine to tag tobacco, for which he was offered \$50,000 by parties in St. Louis. Other citizens of Reidsville also have shown an invent-

ive turn, as, for instance, a Mr. Blackburn, who, several years ago, patented a cow-pen, so arranged that the worst kicking cow in the world can be milked with perfect safety to the milker, as the pen is so constructed as to render it impossible for the cow to kick.

Mr. Gibbs, of the Wilcox & Gibbs Sewing Machine, is a Virginian, and invented the machine which is the most popular of all the single thread ones.

There have been many inventions made in Virginia and in the South generally, since the war. In March, 1904, the papers noticed a valuable invention made by a Mr. Frank Kent, of Montvale, Va., master mechanic of the H. C. Frick Coal and Coke Company, but I never heard whether he met with sufficient encouragement to warrant him in manufacturing the machine. A newspaper of the day thus describes his invention:

While the model is small, the machine is simple in construction, and any one can easily understand its operations. It is in the form of a shute, raised at one end, on a carriage or pivot. At the lower end are rakes for coal and forks for coke. When the machine is started up these rakes or forks gather in the coal or coke from the pile, and a carriage similar to the elevator in a mill, provided with cups,

MOORE'S FAMILY GROCERY STORE

WHOLESALE & RETAIL GROCERIES, FEED, WINES & LIQUORS.

SEND US YOUR GROCERY LIST AND GET OUR PRICES.

QUALITY HIGH: PRICES LOW.

Pillsbury Flour, per bbl.....	\$ 5.40	Bran, per cwt.....	1.10	Old Geneva Gin.....	2.00	-	-
Gold Medal Flour, per bbl.....	5.40	Ship Stuff, per cwt.....	1.15	London Dock Gin.....	2.50	-	-
Dunlop Flour, per bbl.....	4.90	Timothy Hay, per cwt.....	.80	Five yr., old Gibson			
Obelisk Flour, per bbl.....	4.90	Clover Hay, per cwt.....	.70	Whiskey.....	3.50	-	-
Daisy Flour, per bbl.....	4.40	Coarse Meal, per cwt.....	1.25	Five yr., old Moore's			
Best Water Ground Meal, bu.....	.65	Corn and Oat Chop, per cwt.....	1.10	Crown Whiskey.....	3.00	per gal	
Early Rose Seed Potatoes.....	.80	Straw, per cwt.....	.60	Five yr., old Star Rye			
Irish Potatoes.....	.75	Shucks, per cwt.....	.60	Whiskey.....	2.50	-	-
Gran. Sugar, lb.....	.04	Molasses Feed, per cwt.....	1.10	Five yr., old Keystone			
Arbuckle's Coffee, lb.....	.15	Cotton Seed Hulls, ton.....	11.50	Whiskey.....	2.50	-	-
Pure Lard, lb.....	.10	Cotton Seed Meal, ton.....	31.00	Three yr., old Excelsior			
Good Lard, lb.....	.08	Corn, Oat & Wheat sacks.....	.05	Whiskey.....	2.00	-	-
Best Salt Pork, lb.....	.11	Juice, free.....		Linseed Meal, ton.....	36.00		
Good Salt Pork, lb.....	.07	Peach Brandy.....	2.50	Two yr., old Old Capitol			
Cut Herring, doz.....	.10	Fine Catawba Wine.....	\$.50	Whiskey.....	1.50	-	-
Best Cheese.....	.16	Fine Blackberry Wine.....	.60	Five yr., old Virginia			
Large Can Tomatoes.....	.08	California Port Win.....	2.00	Mountain Whiskey.....	3.00	-	-
100 lb. Sack Salt.....	.50	Good Port Wine.....	.60	Five yr., old North Caro-			
Rock Salt, lb.....	.01	California Sherry Wine.....	1.00	lina Corn Whiskey.....	2.50	-	-
Corn, per bu.....	.58	Imported Sherry Wine.....	3.00	Three yr., old North			
Oats.....	.43	Imported Port Wine.....	3.00	Carolina Corn Whis-			
Chicken Wheat.....	.90			key.....	2.00	-	-

Orders promptly filled and shipped.

J. S. MOORE'S SONS, Inc., 18th & Main Sta., Richmond, Va. Long Distance Telephone.

carry the coal to the car at the elevated end. Underneath the elevated end is the movable platform on which the fireman and engineer stands, and where the engine is located. The engineer can move the lower end of the machine from place to place by a simple contrivance, rake in coal or coke and load it in the car at the elevated end. With this machine one man takes the place of fifty in loading coal and seventy-five in loading coke.

In a still later paper, February 1, 1906, we see the following notice of patents granted to Virginians.

PATENTS TO VIRGINIANS.

Washington, February 1.—Messrs. Davis & Davis, Washington patent attorneys, report the grant this week, to citizens of Virginia, of the following patents:

Fred. D. Ackerman, of Hampton, sliding door for railway cars; George H. Brown, of Norfolk, machine for making veneer stave barrels; James E. Worth and W. B. Eten, of Fancyhill, sparking device for engines.

Bedford County, Va., Jan. 5, 1906. I cannot do without the monthly visits of the Southern Planter.

S. A. READING.

Always mention the Southern Planter when writing advertisers.

What Then?

A young man was boasting to his friend that he meant to make his fortune early in life. "What then?" asked his friend. "Then! why I intend to marry and bring up my family was again the inquiry. "Then I will in good position." "And what then?" retire and enjoy my fortune." "And what then?" "Then, I suppose, in time I must die." "And what then?" The young man became silent and thoughtfully, for he saw what his good friend had been driving at.

An anecdote of the same kind is told of Alexander the Great, who, when conversing with his friend Parmenio, unfolded his plans of conquest. The World itself was the only limit of his ambition. Parmenio asked what he meant to do after conquering the world. "Why, rest, to be sure." "Well," said his friend, "Why not settle down now, and enjoy that peace and rest which you intend to take at last?" Yet that life is poor and vain whose horizon is bounded by time.

There are a number of incidents which occurred in the early history of Virginia which might be worthy of illustration in connection with the above thought.

Nothing is left of Jamestown but the old tower which formerly surmounted the entrance to the first Episcopal Church built in America.

At one time, Jamestown was a finely stockaded village capable of sustaining the shock of savage attack. These stockades are but memories, but they once were important facts.

Appomattox County, Va.

Feb. 8, 1906.

I read the Southern Planter closely and enjoy every page in it.

F. B. JONES.

Surry County, Va., Jan. 17, 1906.

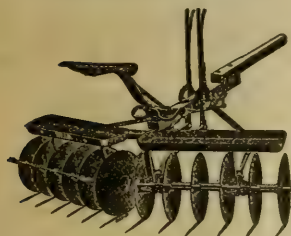
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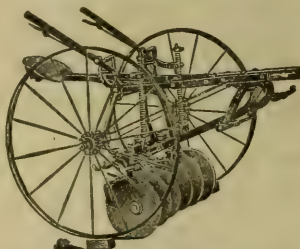
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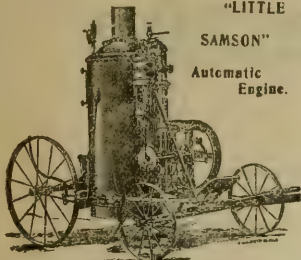
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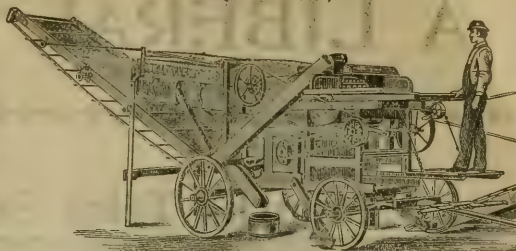
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PLANTING FORESTS ON THE NATIONAL RESERVES.

How the Government is Restoring Denuded Mountains and Unproductive Wastes to Secure Timber Crops and to Husband Water Supply.

Forest planting on the National Forest reserves has gained far wider scope and a wholly new importance since the administration of the reserves passed to the Secretary of Agriculture, a year ago. This work now forms a leading part of the activity of the Forest Service and gives great promise for the future.

This change is due to a fuller appreciation of the needs of timber supply and water conservation, and to the knowledge that nature, unaided, can not repair the forest ravage and waste of the past.

The area now under forest in the West is less by millions of acres than the area suitable for forest growth. In the first place, fire has destroyed an enormous quantity of forest, denuding mountain slopes so completely that forest renewal by natural means has been rendered impossible for ages. Again, vast areas, scores of millions of acres, like the chaparral lands of southern California, which once bore forest growth but long since lost it, must remain indefinitely unproductive

wastes unless brought again, by planting, under forest. Moreover, the demand for timber, even the local demand, can not long be supplied from the reserves unless they are developed to the highest productive capacity, and, for this, forest replacement and extension, quite as much as conservative logging, are essential. Finally, the indirect use of the reserves is not less impressive. The vital importance of water for irrigation would, in the case of several of them, alone suffice to render forest planting on watersheds imperative. In southern California forest extension on the mountains is strongly favored by public sentiment, at almost any expense, because it is water, not the supply of fertile soil, worth \$2,000 an acre with water could hardly be given away without it.

There are now six permanent reserve planting stations, two in California, one in New Mexico, one in Colorado one in Utah, and one in Nebraska. Others will be established as it is found advisable.

The past winter has been extremely favorable for planting in California. A large force of men has been employed, both in the San Gabriel and in the Santa Barbara mountains. Since the beginning of the rainy season about one hundred thousand seedlings have been set out. At least a dozen kinds were tried, to ascertain which are

most suitable for use at different altitudes and under different exposures. Besides the seedlings set out on the mountain slopes, from two to three hundred thousand more have been transplanted from covered seed beds to open nursery beds, there to be held for use in the winter of 1906-7. The prime object of the operations in southern California is the improvement of important watersheds.

With the approach of the spring season plans are being made for active work at the other stations. The most extensive planting will be done in the Dismal River Reserve, near Halsey, Neb. Here five hundred thousand two-year-old pine seedlings will be planted in the sand hills adjoining the nursery site. This work will begin about the middle of April and will continue for a month or six weeks. This Dismal River Reserve is located in the typical sandy-hill country, where the ground is of little value for agriculture, but well adapted to tree growth. The forestation of this large reserve will create an important future timber supply, and will at the same time demonstrate that these sand-hill lands generally can be put to productive use.

On the Pikes Peak Reserve planting will be done near Clyde. From thirty to forty thousand yellow pine and red fir seedlings will be shipped from Nebraska for that purpose, since seed-

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Send in at once.

The SOUTHERN PLANTER, Richmond, Va.

lings in the Clyde nursery are too small for transplanting. The planting will be done on denuded watersheds for the conservation of water and for a future store of timber.

In the recently established reserve in the vicinity of Garden City, Kans., extensive experimental plans will be carried on. For this project fifty thousand pine seedlings will be shipped from Nebraska and thirty thousand broadleaf seedlings will be purchased from nurserymen. A section of land will be fenced, and fire guards will be plowed to protect the planted area. The work here will serve the same purpose as in the Dismal River Reserve, and will, besides, be a great incentive to settlement.

The success which accompanied seed sowing in the Black Hills Reserve last spring has encouraged the Forest Service to plan similar work for this spring. Broadcast sowing had never before proved successful in reserve work, but the 300 pounds of yellow pine seed cast upon the snow in this experiment produced results far beyond all expectations, results which appear to indicate the practicability of this method on thousands of acres in this region. Of all methods of forest planting it is the simplest and cheapest, and the local demand for timber for mining purposes is great.

Nursery work will be carried on ex-

tensively at all the stations. At the Fort Baynard station, New Mexico, permanent headquarters will be established and open transplant beds constructed. With the new nursery beds at the Wasatch station, Utah, at the Bear Creek station in the Pikes Peak Reserve, and at Clyde, Colo., and the enlarged beds at Halsey, Nebr., the total area of seed beds will have an annual capacity of about twelve million seedlings.

At the end of the planting season nearly five hundred acres will have been newly restored.

We have had the pleasure of examining a new work on poultry plant construction entitled, "Poultry Houses and Fixtures," and consider it unquestionably the most practical and authentic treatise yet issued on this important subject. The different types of houses are classified under Closed Front, Curtain Front and Scratching Shed Houses, and the construction of each house is plainly illustrated and described, as well as numerous appliances for the house and yard.

The work consists of 96 pages with a handsome two-color cover, and contains 175 illustrations. We are able to send this book to our readers at the publishers' price of 50 cents per copy. Send in your order early and obtain

the experience of successful poultrymen before commencing to build.

CORNED BEEF.

When the natural heat is out of the beef and it is thoroughly cold cut in pieces of convenient size, and pack in a barrel or tub.

Make sufficient pickle to cover the beef in following proportions:

Six quarts salt, six gallons water, one-quarter pound of saltpetre, one pound sugar (brown preferred) or one quart of molasses, just mix cold pour on beef, putting a weight to keep it covered. Fit for use in a week. Will keep six months. Have used this for fifty years, never knew a barrel spoil unless the beef was tainted before pickling.

Boil until bones will leave the meat; remove the bones; put the beef in a plate or bowl and put plate on top to press until cold. A fish barrel or keg makes a good pickling vessel and does not affect the beef.

The above is a good pickle to put (hog) hams in for four weeks before smoking.

W. A. GRAHAM.

Machpelah, N. C., March 12, 1906.

Dinwiddie County, Va., Jan. 5, 1906.

The Southern Planter is an O. K. farm paper.

T. H. MALONE.

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AGRICULTURAL

For COTTON or CORN When used on land with a fair amount of vegetation the crops are as good as from any Fertilizer. It prevents RUST and SHEDDING, and keeps the plants green much longer in dry weather.

PEANUTS With the same conditions as above it is a COMPLETE FERTILIZER for this CROP. Our customers say it is equal to the BEST FERTILIZERS ON THE MARKET.

DARK HEAVY TOBACCO Haul out your farm pen scrapings, plow under and broadcast 500 to 600 lbs. per acre [the earlier the better], and you will get a heavy crop of tobacco and a fine crop of Wheat and Clover or other grass, and by proper rotation will have a rich lot for any crop.

BRIGHT TOBACCO Our customers say that 200 lbs. per acre in the drill with other Fertilizer will prevent the tobacco from FIRING and giving it a GOOD BODY and increase its value \$20 per acre. For Wheat, Oats, Clover and other grass it is exceptionally good.

LEE'S EXCELSIOR TOBACCO FERTILIZER.

Specially adapted to dark shipping tobacco.

LEE'S HIGH-GRADE BONE and POTASH,

Special for Corn, Sweet Potatoes, all kinds of vegetables.

Lee's Special Corn Fertilizer for land devoid of vegeta-

tion, equal to any on the market.

IMPORTERS OF BASIC SLAG AND GERMAN FRUIT GROWER.

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Constantly on hand.

No. 1 BUILDING LIME, in car load lots

direct from kiln, LOWEST MARKET PRICE.

WRITE FOR CIRCULARS.

A. S. LEE & SONS CO., Inc., Richmond, Virginia.

WILLIE'S CONFIDENCE IN HIS MOTHER.

Little Willie, who had been many times the victim of his brother John's pranks, disliked the idea of going with him to bed.

"Mamma, won't you go upstairs and watch me till I go to sleep?" he asked. "God will watch over you, Willie," answered his mother.

"Yes, but I'm afraid God'll just monkey around and let John scare me again."

E. V. B.

An old Scotchman, being asked how he was getting on, said that he was all right, "gin it wasna' for the rheumatism in the right leg." "Ah, John," said the inquirer, "be thankful, for there is no mistake, you are getting old, like the rest of us, and old age doesn't come alone." "Auld age, sir," returned John, "I wonder to hear ye. Auld age has naething tae dae wi't. Here's myither leg just as auld; an it's soond and soople yet."

Danville, Ky., Jan. 24, 1906.

I congratulate you on having such a splendid number of the Southern Planter for January.

W. W. HIGGINBOTHAM.

Mention The Southern Planter when writing advertisers.

At Jamestown was held the first legislative Assembly ever selected by popular suffrage in any colony. This was the forerunner to our State legislatures and national congress. This thought might be incorporated.

From Virginia adventurous pioneers crossed the Appalachian Mountains, first settling the valleys between the Blue Ridge and the Alleghenies, and proceeding westward, settled the Cis-Mississippi States.

The men who first made this pilgrimage were the Knights of the Golden Horse Shoe, the only purely American Order of Knighthood.

The Revolutionary War was concluded in Virginia by the Battle of Yorktown. The Civil War period is largely a record of Virginia events.

Of course, more modern history would not be as appropriate in this device as some thought connected with the seventeenth century.

The Jamestown Exposition Company is offering \$100.00 to the artist or imaginative amateur who can, out of his inner conscience, create a thought which will subserve their purpose and will typify the beginning of the nation.

Prince George County, Va., Dec. 27, '05
I must say I don't think any Virginia farmer's home is complete without the Southern Planter.

B. C. HARRISON.

Warren County, N. C., Feb. 8, 1906.

I consider the Southern Planter one of the most valuable agricultural papers published.

JNO. K. MYERS.

Portland Mich., Jan 21st, 1906.

I find the Southern Planter a very instructive agricultural agent for any climate, though I can realize that it is of peculiar worth to the Southern States.

H. H. STILSON.

Albemarle County, Va., Feb. 13, 1906.

The Southern Planter is better than ever. It is an honest journal.

H. R. BOSWELL.

Kent County, Md., Jan. 5, 1906.

The Southern Planter is much appreciated in my home.

WM. G. SMYTH.

Halifax County, N. C., Jan. 4, 1906.

The Southern Planter is a fine paper and I feel that I cannot do without it.

R. B. HUNTER.

Duplin County, N. C., Jan. 8, 1906.

I have been a subscriber to the Southern Planter for several years. I am highly pleased with it, and do not want to be without it.

L. W. ALDERMAN.

Aspinwall Potato Machinery. 20th Century Machinery.



Kemp's Twentieth Century Improved Mangle Sander. Made in three sizes. Write for special Catalogue and prices.



ONE AND TWO-HORSE PLANTER, PLAIN OR WITH FERTILIZER ATTACHMENT.

Smith's EUREKA Corn Planters.

FARMER'S FRIEND Piston and Fertilizer.

ASPINWALL POTATO PLANTER.

Automatic, accurate and Reliable. Used by thousands of practical growers the world over. Over twenty years on the market. Don't be fooled by imitations and make-hits, but write for our active list of strawed catalogue.

Buckeye Force Pumps, Porcelain Wood Pumps, INL Steel Wind Mills. Always write for prices.

National Road Machines, Drag and Wheel Scrapers and Pump Wagons "Quality" the best. Prices right. Carried in stock by the carload. Write for catalogues, prices and testimonials.



POTATO PLANTER PLAIN OR WITH FERTILIZER ATTACHMENT.

19. S. B.



DON'T FORGET! All the merchants in town who claim to sell Oliver Gullied Pumps and Repairs only sell the Imitation, Bogus, cheap goods. The only place in Richmond, Va., to buy Genuine Oliver Pumps and Repairs is at 1436 and 1438 E. Main Street.

Repairs carried for everything we sell.



BEMENT'S DISC CULTIVATOR, with 6 or 8

built entirely of steel forgings and malleable iron. The most simple and easiest adjusted cultivator on the market to-day. Write for circulars and testimonials.

HENING & NUCKOLS, Successors to CHAS. E. HUNTER, 1436-38 E. Main St., RICHMOND, VA.

The Southern Planter.

DEVOTED TO

PRACTICAL AND PROGRESSIVE AGRICULTURE, HORTICULTURE,
TRUCKING, LIVE STOCK AND THE FIRESIDE.

Agriculture is the nursing mother of the Arts.--XENOPHON.
Tillage and pasturage are the two breasts of the State.--SULLY.

67th Year.

Richmond, Va., May, 1906.

No. 5

Farm Management.

WORK FOR THE MONTH.

April has been a much more seasonable Spring month than March was. Indeed up to this writing (the 20th inst.) it has been all that could be desired, though showers are now needed in many sections of the State as the ground is becoming hard and difficult to plow and breaking up cloddy. Wheat, winter oats, grass and crimson and red clover have made good growth during the month and are now looking well. We have reports from several parties having Alfalfa fields that this crop is nearly ready for cutting the first time and by the time this issue reaches our readers these men will have made their first hay crop this year. This shows what a wonderful crop this will be in helping over in a long winter and late spring. It takes only a few days of warm growing weather to set the crop into rapid growth and ten or twelve days thereafter the crop may be cut the first time. We are delighted to know that many farmers in all sections of the State are experimenting with Alfalfa and that our long continued advocacy of the crop is at last bearing fruit. We would urge that hundreds who have not yet tried it should prepare to give it a trial this year. It is too late now to sow it this Spring, but not either too late or too early to begin to make preparation for seeding in the early fall. Select a piece of the most fertile land on the farm which is sound and well drained, and plow deeply, and then spread 20 bushels of lime to the acre on it and harrow in and leave until weeds sprout, and then harrow on a hot dry day and kill this crop and leave ready for another weed crop to grow and so continue working un-

til July. In this way all the weed seeds within five or six inches of the surface will have sprouted and been killed. Weeds are the greatest hinderance to the growth of Alfalfa in the South. It is useless to attempt to grow the crop until the weeds are eradicated. In July apply 400 lbs. of Raw Bone Meal to the acre and harrow in and inoculate land with alfalfa bacteria, either by applying 200 lbs of soil from an old alfalfa field or if this cannot be had, then by using the Bacteria itself which can be had from the Experiment Station at Blacksburg. After this been applied and harrowed in, sow 25 lbs of Alfalfa seed per acre, sowing half one way and half the other and harrow in and roll if the land is dry. This sowing should be done in August if possible and then the plants will have a chance to make a good growth before winter sets in and a good stand should be obtained. Mr. W. H. Randabaugh, of Powhatan C. H., who farms what he says was known as the second poorest farm in Powhatan county, when he bought it sent us the 10th of April, Alfalfa 9 inches high which he seeded on the 12th of September, 1905, and of which he has a good stand on 3 acres. He commenced to prepare this land in April 1905 and grew cowpeas on it last year to smother out the weeds. He used acid phosphate on the peas and Basic Slag 200 lbs. to the acre before sowing the alfalfa seed. The land was inoculated with Bacteria from Blacksburg. If a success like this can be made on such a place no man need despair of growing Alfalfa in Virginia.

The condition of the winter wheat crop on April

1st is reported by the Federal authorities as standing at 8.91 against 9.16 on April 1st, 1905, and 8.41 the average for the last ten years. In Virginia the condition is 93 as against 86 last year and 83 the ten years average. In Maryland the condition is 93 as against 86 a year ago and a ten year average of 87. In North Carolina the condition is 93 as against 92 a year ago and a ten year average of 87. In South Carolina the condition is 90 as against 85 last year and a ten year average of 89. In Tennessee the condition is 92 as against 89 last year and a ten year average of 83. These figures would seem to indicate the prospect of a good wheat crop. We have not yet got the figures of the loss of acreage seeded by winter killing, but so far as we are able to gather these are not likely to be large. Already spring wheat is being seeded in the northwest and if the weather continue good there is likely to be a large acreage put in. The acreage of winter and spring oats in the South is likely to be below the average. Whilst winter oats are generally looking well, spring oats, on account of the severe weather, in March are very late and much of the land intended to be sown in that crop was never seeded and will be put into forage crops later. This is a wise policy as late seeded spring oats rarely amount to much in the way of making feed whilst forage crops can be put in up to the end of July and make excellent returns.

In our last issue we discussed fully the preparation of the land for the planting of the corn crop and the question of selection of seed and to that issue we invite the attention of all our readers. As yet very little corn has been planted north of South Carolina and it is just as well out of the ground as in until we have warmer weather to fit the land for seeding. Corn planted in cold soil rarely germinates well and often much is lost by rotting and even though it should germinate and the plants show above ground they are not going to grow freely until the weather is warm. Corn is a hot climate crop and it is wasting time and opportunity to endeavor to make it change its nature and grow in cold weather and soil. Before passing from this subject of preparing the land for the crop we want to advert for a moment or two to an article which has been widely published in papers throughout the South and on which we have been several times asked our opinion. The article is from a farmer in South Carolina who claims to have devised a new method of securing a heavy crop of corn by a process of stunting the

growth of the crop after it has made a good start and then starting it again. By this means he says he secures less stalk and more corn. He claims that under this system land that will ordinarily produce 1,000 lbs. of seed cotton per acre with 800 lbs. of fertilizer, 50 bushels of corn per acre should be made by using 200 lbs. of cotton seed meal, 200 lbs. of acid phosphate, 400 lbs. of Kainit and 125 lbs. of nitrate of soda all to be used as a side application during the cultivation of the corn and that on land which will make a bale and a half of cotton per acre when well fertilized 100 bushels of corn should be produced by doubling the amount of fertilizer above mentioned and using also 300 lbs of nitrate of soda per acre. We fail altogether to see that there is any merit in this way of growing corn and do not see where the profit can possibly come in. He advises deep and perfect preparation of the land during the winter and early spring and then plants his corn in rows 6 feet apart and 16 inches apart in the drill. He works the crop twice and then leaves it until its so stunted as to appear practically a ruined crop and then cultivates and applies the fertilizers named along the sides of the rows. It seems to us that on land which will produce 1,000 lbs of seed cotton per acre at least 30 bushels of corn should be raised without the use of any fertilizer if a crimson or other clover sod was plowed down and to take 925 lbs of fertilizers as costly as those mentioned to make only 20 bushels more per acre would make the whole yield a very unprofitable one. It would take more than the extra yield of 20 bushels to pay for the fertilizer alone. Besides this consideration there is great risk involved of losing the whole crop in the stunting process. It is one thing to stop the growth of a crop by neglect. It is altogether another thing to start it into growth again. More depends on the season than on the man. Strike a dry time at this point and the whole crop would be lost with the fertilizer with it. The crop which always makes the best yield is the one which grows uninterruptedly from the day it germinates until the day the ear completes its growth. This has been our experience and that of all the growers of great crops. It is true that many of the great yielding crops have made more stalk than one cared to have and that the ears have been borne to high up on the stalk. This is especially true of crops grown in the South. Our climate induces tall stalky growth, especially so when no efforts have been made by selection of seed to counteract this natural habit. But instead of stunting the crop to check this tendency and running the

risk of ruining the whole crop and wasting a whole lot of costly fertilizer, the remedy is selection of the seed from stalks carrying the ears low down and persistence in this selection. We repeat what we have said so often that the use of commercial fertilizers on the corn crop however used is rarely profitable. It may and often does increase the yield but scarcely ever profitably. The way to profit is to use manure and fertilizer to make the leguminous crop which precedes the corn a luxuriant one and then to plow deep and work fine before planting, and to cultivate shallow and often, and rely on these aids and the help of the legume crop to make a heavy yield of corn. With a favorable season disappointment will rarely follow and there will be no fertilizer bill tagged on to the corn crop.

After the corn is planted the cultivation of the crop calls for almost immediate attention and especially is this so when a rain falls on the land before the plants have come through the soil. In such an event, as soon as ever the land is dry enough to go on with a team, use either a weeder or a harrow to break the crust and cover the surface with a fine mulch of loose soil. A weeder is better for this purpose than a harrow as its many teeth break and pulverize the surface of the soil without any danger to the young plants, but if you have no weeder do not hesitate to use the harrow. Either the weeder or the harrow should continue to be used in the cultivation of the crop until it is 6 or 8 inches high, indeed the weeder may be used until it is nearly a foot high with great advantage. After the corn is too tall to be worked with the weeder or harrow then an Iron Age cultivator or one of the riding cultivators with small hoes on the teeth should be used. Never use a plow to cultivate a corn crop. When the crop is a foot high the fine roots which feed the crop will have extended more than a foot on each side of the rows into the middles and by the time the crop is a yard high the roots should extend from row to row. To put a plow into the land among these roots is simply to murder the crop by degrees. Every root cut or broken simply robs the plant of its life blood and before it can make progress again must be substituted by another root made at the expense of the growth of the plant. The object of cultivation or working the crop is to keep the surface of the soil open and permeable to the sun and air without which the crop cannot grow, and to prevent the evaporation of moisture from the soil and conduce to the acquisition of moisture from the air. The killing of weeds

is not to be the one thing aimed at. It should only be incidental to the other objects and can best be accomplished by so frequently stirring the surface soil as to prevent the weeds from growing by destroying them as they germinate and before they become soil and moisture robbers. Every day weeds are permitted to grow after they germinate means so much plant food lost to the crop; hence the importance of frequent shallow cultivation. How often a corn crop should be cultivated is a question the answer to which depend upon the weather more than upon the crop itself. The surface soil should always be kept in a fine loose mulch and then the soil below if properly prepared before the crop was planted will be kept in the best condition for the well doing of the crop. In one experiment made, certain plants were not cultivated at all, others were cultivated five times and others were cultivated fourteen times. Part of these were cultivated shallow and part were cultivated deep. In the plots not cultivated the weeds grew luxuriantly and the yield was 17 bushels of shelled corn to the acre. The plots cultivated shallow five times produced 79 bushels of shelled corn per acre. The plots cultivated shallow 14 times produced 80 bushels of shelled corn per acre. Where the plots were cultivated deep five times the yield was 69 bushels to the acre. A plow has no place in a corn field after the crop has been planted except it may be on river low ground badly infested with climbing vines. These vines grow in the rows between the corn plants and as these cannot be reached by any cultivator except the hoe, and as hoe labor is now too expensive to use on the corn crop, a light furrow may be plowed down each side of the corn row and the soil be thrown on the vines to smother them. But even in this case the space between the rows should be cultivated with a cultivator and not with the plow. When cultivation is finished do not plow a furrow to the corn and thus place it on a hill. This only means robbing the corn of moisture which it needs by making the surface acted upon by the sun so much larger and running off the rainfall into the middles and thence out of the ends of the rows. If corn land has been kept level all the time the roots will have filled all the width between the rows and these roots not having been cut at any time will hold the corn firmly braced against the wind and it will stand up against a gale better than if hilled, as in hilling some of these roots must necessarily be cut. At the last cultivation sow crimson clover, sapling clover or cow peas or a mixture of all these in the corn. They will shade

the land and make their growth after the main crop has made its growth and provide a cover for the land during winter, grazing for stock and a good fallow to turn down for the next crop. A pound or two of rape seed per acre may also be sown with advantage to the grazing.

In the cotton section where planting is not already completed this work should be pushed on as fast as the weather and the condition of the land will permit. It is an excellent practice to help this late planted cotton by applying a few pounds of readily soluble fertilizer directly in the furrows with the seed. For this purpose nothing is so effective as nitrate of soda. It should be applied at the rate of 40 or 50 pounds to the acre by strewing it along the rows after the planter. It needs no covering. It dissolves with the dew and will cause the plants to come up quickly and grow luxuriantly and thus be ready to chop to a stand much sooner. The work of bringing the crop to a stand should have attention as soon as ever the plants are large enough, that is to say, when they show the third leaf and are in healthy condition. The hoe should then be used in chopping out the surplus plants, leaving bunches of two or three plants at the required distance apart in the row for the future stand. The distance apart at which the plants should be left in the final stand varies much in different sections. Experiments made at various Stations have conclusively shown that the nearer the plants are placed on a square the greater will be the yield of the crop, that is to say, that if 12 square feet be assigned to each plant they will prove more productive to space them 4x3 feet or 3 feet 5 $\frac{1}{2}$ x 3 feet 5 $\frac{1}{2}$ than to space them 6x2 feet. Cotton planted in 3-foot rows and spaced to one plant every 2 feet has almost invariably produced an excess more than sufficient to pay for the greater expense of planting and cultivating in comparison with cotton planted or spaced 4x1 $\frac{1}{2}$ feet or 5x1 $\frac{1}{2}$ feet or 6x1 foot. At the Georgia Experiment Station on soils capable of producing 1 to 1 $\frac{1}{2}$ bales per acre cotton when spaced 4x1 foot has almost invariably exceeded the yield when spaced 4x3 feet and 4x4 feet. After blocking out with the hoe has been done have the bunches of plants left thinned out to a single plant as quickly as possible and thus secure for that plant all the plant food available. The subsequent cultivation of the crop should follow the lines laid down in this article for corn cultivation. Cultivate shallow, frequently and keep level. Sow

crimson clover in the cotton at the last cultivation.

The setting out of the tobacco crop will require attention during this month. Plants we hear are small and late, but we had rather they were in this condition than overgrown and spindling. There is yet plenty of time for them to make good plants before the crop need be set out. Let this time be given to making the land better fitted for the crop than it frequently is made. Tobacco is a fine rooted plant, gathering its food from a comparatively small area around the plant and therefore calls for the land to be put into the finest state of cultivation before the crop is planted if the best results are to be had. It is also essential that there should be a plentiful supply of plant food within the immediate reach of the plant and that the soil should be rich in vegetable matter so as to insure against baking of the land and continued availability of the plant food. In our last issue we discussed and advised as the best form in which to fertilize the crop and to that issue we refer our readers. When compared with the quantity of fertilizer applied per acre in the northern tobacco-growing sections the amount usually applied in the South appears very small and we are strongly of opinion if a properly compounded fertilizer is used with greater liberality a much heavier yield could be secured. We are aware that many growers are complaining that at present prices tobacco growing is an unprofitable business and that they cannot afford to fertilize more liberally. We are not inclined to agree with them in this view where good land is selected adapted to the crop and it is properly prepared and built up with leguminous crops. Within the last few days we have had a farmer in this office who came from the North a few years ago and settled on a poor farm in Hanover County. He was told that he would starve to death on the place. Last year he determined to grow a tobacco crop on a piece of the land which he had improved with peas and clover. He prepared it well, fertilized it moderately and planted his crop and cared for it properly. He kept a strict account of every expense incurred, charging the crop with his own time and that of his team at the rate he charged when working for other farmers, also charging the crop with interest on the value of the land at \$60 per acre and with interest on tools and equipment for the production of the crop. When he called at our office he had just sold the crop on this market and received pay-

ment for it and on making up his account found that he had within \$4 received twice the amount the crop had cost him to produce and that he had a piece of land greatly improved for the production of another crop. He says tobacco growing pays at present prices, and he is not the only grower by a number who have told us the same thing this spring. If growers will only make *good tobacco* and plant the crop only on land fitted well naturally, and by careful work to produce the crop, there is money in it. It will not pay to make poor tobacco on poor land badly prepared and fertilized with 2. 8. 2 goods.

Peanuts should be planted this month. This crop is one becoming of greater importance every year, the demand for the nuts constantly increases and each year sees the market nearly bare of stock before the new crop is available. Already we grow over 3,000,000 bushels every year in this State and North Carolina produces an equal quantity. The land in the Eastern sections of these two States is peculiarly adapted to the production of the crop and though the average yield per acre is only about 30 bushels yet if proper preparations were made we believe that this yield could easily be doubled. We have known 60 bushels to be made in this State and over 100 bushels per acre has been made in South Carolina. Within the past few years a number of men have come in from the North and West and begun to produce pea nuts and several of them have told us that they find the business profitable and are extending their operations. The mistake made by most growers is that they will persist in growing the crop year after on the same land or at most with only one crop intervening. This naturally so depletes the land of the plant food required by the peanut as to result in the present low average yield. Peanuts should be grown in rotation with cow peas, sweet potatoes, oats or other small grain and thus come only on the land once in every three or four years. A cover crop of crimson clover should follow the oats and be plowed down in the spring and once in every rotation 25 bushels of lime should be applied per acre. This should be put on the land before sowing the crimson clover and so insure a stand of this crop and help the nuts to fill. The cow pea crop should have 300 lbs of acid phosphate applied per acre or from 600 to 1,000 lbs. per acre of ground phosphate rock should be applied. We believe that if this untreated rock phosphate (Floats) was liberally used on these pea nut lands with cow peas to make it available good results would be reached. Be-

fore planting the peanuts a fertilizer made of 100 lbs. of acid phosphate, 300 lbs. of cotton seed meal and 65 lbs. of muriate of potash per acre should be applied and be well worked into the soil.

The preparation of the land for and the planting of the several forage crops which we can so successfully grow in the South calls for attention this month, although one or other of them can continue to be planted up to the end of July with certainty of making a successful crop. Already the first of these forage crops planted in the fall of last year are ready to be harvested. Alfalfa and crimson clover are being cut all over Eastern, Middle and Southern Virginia and in the States further South. Rape sown in March is making rapid growth and nearly ready for the sheep and young cattle to graze. The crops still to be planted are soy beans, cow peas, sorghum and the millets and corn for the silo and for fodder. Soy beans should be first planted as they make a long season of growth. In this issue will be found an article describing the experiments made with this crop at the Blacksburg Experiment Station last year to which we invite attention. All over Middle, Eastern and Southern Virginia and further South the large yellow Soy succeeds well and makes either an excellent hay or grain crop. It will succeed on thinner land than the cow pea, but where not previously grown ought to have the soil inoculated with the proper bacteria, which can be done by spreading a few hundred pounds of soil per acre from a field which has already grown the crop, or the bacteria can be obtained from the Experiment Station at Blacksburg. The crop will usually grow without inoculation on fairly good land, but it does not do its best until the soil is infected with the specific bacteria of the plant. The land should be well prepared by being deeply ploughed and finely harrowed and the seed may then be sowed either broadcast or drilled in rows 2 feet 6 inches or 3 feet apart. If intended to be cut for a hay crop sow broadcast one bushel of seed per acre. If intended to be grown for the seed, plant in drills, when less than half a bushel of seed will plant an acre. The seed should be dropped about 6 inches apart in the rows, and the crop be cultivated like corn and at harvest be cut with the reaper and set up in shocks. When intended for hay cut when in full growth and just beginning to pod. It cures easier than cow peas and is not so easily spoiled with rain. Soy beans may be grown in mixture with cow peas for hay and make fine feed, and the mixed crop is easier to

cure than the cow peas grown alone whilst the strong upright stalks of the Soy holds up the cow pea vines and thus secures a better growth and less trouble in cutting. Sow in about equal parts of the two seeds. Cow peas may commence to be sown in May but it is not advisable to sow until the ground is warmed up, as in cold soil the seed rots badly. This crop may be sowed either broadcast or in drills 2 feet 6 inches apart. For hay it is usually sown broadcast and harrowed in, but even for this purpose a much better stand can be had by sowing with a grain drill, stopping up every other spout. This also results in economy of seed. When sown broadcast a bushel of seed per acre is needed, whilst if drilled half this quantity will suffice and if planted in rows 3 feet apart a peck and a half will plant an acre. When planted in rows the crop should be cultivated two or three times. The heavier the growth of all the leguminous crops like cow peas and Soy beans the greater will be the advantage secured to the land by the nitrogen gathered from the atmosphere and to secure this heavy growth it is well to give an application of 300 or 400 lbs. of acid phosphate per acre before sowing the crop, or untreated rock phosphate may be applied at the rate of 500 or 600 lbs. to the acre, the effect of which will be seen also in the following crops, and in permanent improvement to the land. We have numbers of subscribers who every year grow cow peas mixed with millet and say the crop makes excellent hay. The only objection we have to this mixture is that the millet grows too fast for the peas and the crop has to be cut before the peas have made their best growth. We prefer to grow sorghum with the peas as this crop makes a longer season of growth and the cutting may be delayed until the peas are at their prime. A peck of sorghum seed with a half of three-quarters of a bushel of cow peas per acre makes an excellent mixture and the hay is easier to cure than cow peas grown alone and less susceptible of damage in a wet season. There are a number of new varieties of cowpeas which have been introduced in the last few years, amongst these we have excellent reports of the New Era variety. It has succeeded wherever tried and makes a heavy yield. Mr. Latham, of Rapidan, Va., writes us that the New Era pea has largely exceeded the Experiment Station reports. He cut from 24 or 25 acres nearly 40 4-horse waggon loads of hay and peas in great quantities. The wheat on the land following the peas is by far the best of any in his section. Another subscriber writes us: "When recommending cow

peas do not leave out the Red Ripper. It makes a good vine, plenty of seed and is only 10 days behind New Era. These two are my best peas with Clay for a late crop."

Sorghum should be grown either for a fodder, hay or seed crop or for the silo. It is excellent for all these purposes, making a heavy yield of cane which stock are very fond of. The Early Amber and the Early Orange are two good varieties to sow and it is also well to plant some Kaffir corn which is a nonsaccharine Sorghum which resists drouth better than any other variety. It makes an excellent yield of seed which is as valuable as a feed as corn and the fodder is readily eaten. When sowing Sorghum for a hay crop it should be sowed thickly, say at the rate of a half or three-quarters of a bushel per acre so that the stalks may not grow thicker than a pencil and then it is easily cured into good hay, being cut when just coming into seed. When intended for fodder or for the silo it should be planted in rows like corn and be cultivated, and for these purposes not more than a peck of seed will be needed per acre. As a silage crop it is even more valuable than corn as it is fuller of saccharine matter. When intended for fodder it should be cut just as the seed hardens and be set up in shock in the field and be left there until required to be fed. It is almost impossible to cure it so that it will keep when stored in bulk in the barn or a stack, the stalk is so full of juice, but set up in shocks in the field it cures and keeps well and the stalks will be found full of sweet juice all through the winter and stock are very fond of them.

Corn for the silo and for fodder should be planted in June or July and will mature sufficiently to make excellent silage in 75 or 80 days. Plant in rows 3 feet apart and drop the seed 6 inches apart in the rows and cultivate frequently. Let the corn be fairly matured before cutting and putting in the silo as it then makes sweeter and better silage than when cut when in full growth.

Millet may be sown at any time from now to the end of July or even into August. There are several varieties, but the German and Hungarian varieties are the best for hay. Sow on finely prepared land at the rate of 1 bushel per acre and the crop will be ready to cut for hay in about 60 days. For this purpose it is best cut before the seed forms as the hay with seed in it is not good for horses. The seed affects the kidneys of some animals very prejudicially.

Pumpkins may be sown amongst the corn without injury to the corn crop, indeed some farmers claim that they help the corn by shading the land with their large leaves. Drop a seed or two every few yards, in every second or third row of corn, and usually a large quantity of heavy pumpkins can be harvested. The Virginia Mammoth is a good variety to plant. Hogs and cattle are fond of them during the winter.

BERMUDA GRASS AND JAPAN CLOVER.

Editor Southern Planter:

I have been very much amused at the hysterical way Mr. Townes shows his dislike for Bermuda grass and Lespedeza. His article simply shows that climate and soils make all the difference in the world with crops grown in any locality. If Mr. Townes will go South and try to grow Blue grass, in competition with Bermuda, as a pasture grass, he will soon become convinced that there the Blue grass "is not in it" with the Bermuda. In Culpeper, I have no doubt that either Bermuda or Lespedeza will be little less than a nuisance, while South of Virginia, especially in the lower country of the South-Atlantic coast, there are no two plants that are anywhere near so valuable to the stockman.

A few years ago, I met, at Macon, Ga., a stockman from the Blue grass country of Kentucky, who was about to start a stock ranch in the Bermuda country, and he gave it as his opinion that Kentucky could not compete, in summer pasture, with the country where Bermuda is at home. Mr. French, of North Carolina, who came from a Blue grass section in Ohio, says that in North Carolina the Lespedeza makes a finer summer pasture than the Blue grass, as it is at its best just when the Blue grass is apt to be browned by drought. Both would be only weeds in Culpeper, and Mr. Townes is right, so far as his particular location is concerned. I have never advised Bermuda north of South-east Virginia, nor in the upper country of Virginia, North Carolina or East Tennessee. It is a hot-weather, sun-loving grass, and is especially suited to the Southern climate. I have seen a dense sod of it in the upper pine belt of South Carolina, on a sandy soil, where Blue grass would not grow at all. So it is only a matter of adaptation of the crop to the climate and soil that suits it. On strong clay soils, partially shaded, and regularly watered, with an occasional dressing of lime, Blue grass lawns can be made in the South, but if Mr. Townes attempted to get a field in Blue

grass, from North Carolina, southward, he would soon find that he had undertaken a hopeless job, and would be glad when the ever-present Bermuda took possession. As you have suggested, there is no difficulty in getting rid of Bermuda with smothering crops, but in the proper Bermuda country, no intelligent man, who understands the value of the grass, wants to get rid of it, except in fields devoted to annual crops. It may not seem, on analysis, to be as good as Blue grass, but the best analyst is the animal and any animal that will not get fat on Bermuda will have a poor chance on Blue grass in hot weather.

W. F. MASSEY,

Editor of Practical Farmer.

BERMUDA GRASS--BARN-YARD MANURE.

Editor Southern Planter:

I read your discussions on Bermuda grass. I think you may well advise your readers to go slow on it. It is all right for a sandy, Southern country, but dangerous on a clay soil, and becomes a pest. The objections are that its period of usefulness is too short-lived in the summer, and when you want to get rid of it, you are up to a life-time proposition. Did you ever see a man try to plough Bermuda sod on a moderately stiff clay soil? Strenuous life, wasn't it? He can't do much of it and go to heaven when he dies. For the sandy country of the South it is a blessing, giving a fine growth of nutritious pasture where nothing else will grow. But in any section of the country that has a climate and soil that will grow other grasses, I would advise your readers to let Bermuda alone.

There is another question upon which I have very decided views, and that is using manure (barn-yard) as a top-dressing instead of ploughing it under. My experience is very decidedly against the latter course. I think conditions very rarely justify ploughing manure under. If you replough the land soon enough afterward, you may get considerable benefit, but if you plough under, good and deep, as land should be ploughed, and do not break again for four or five years, your manure is gone. The most profitable way that I find to use manure is to commence top-dressing wheat ground as soon as ploughed in the summer or fall, and keep at it until spring, or else to top-dress young grass any time through the winter. Mr. Editor, don't let them plough manure under. It won't do, except possibly in extreme cases, where there is a veritable gall, and the idea then should be to plough some under and put some on top. This

is a very important question and we all want the truth, and I think of no other phase of farming that could be more profitably discussed than this problem, and I should like very much to have the views of others who have tried both methods. We don't want to hear from the fellow who only has his "individual notions" about it, but those who have practical experience backing them.

PETER G. McCANN.

Loudoun Co., Va.

We are very much inclined to agree with our correspondent in his views as to the proper way in which to use barn-yard manure. We never failed to get good results from using it as a top-dressing on a fall seeded crop or on grass land. Where it is to be used as a help to a spring seeded crop, our experience is that it should be applied on the land after it is ploughed, and be worked in with a cultivator or disc harrow, and then the crop be sown, if the best results are to be secured. This puts it where the crop can get the full benefit of it in its early growth, and insures good rooting, and hence the power to forage for plant food in the soil. Its location in the upper surface of the soil also keeps it within the influence of the air and sun, and insures that there shall be opportunity for the full development and growth of bacterial life in the soil, arising from the inoculation of the manure, and it is upon the vigor and persistence of this bacterial life in the soil that very much of the benefit of the application of manure depends. It is more potent than the actual content of plant food contained in the manure in securing a luxuriant growth and profitable yield from the crops.—Ed.

HOW ONE FARMER IMPROVES POOR LAND AND MAKES A GOOD PROFIT.

Editor Southern Planter:

There is much land in Virginia that is so worn by bad farming that it does not pay the owner a profit. Bad systems of tillage are rapidly exhausting other large areas of land in the Southern States. Farmers are spending large sums of money for fertilizers to restore the exhausted fertility. This question of how best to improve our lands, and at the same time make a profit is of the greatest importance to the State. How many farmers are giving thought to this? What will become of future generations if we bequeath to them an exhausted soil? The growing of leguminous crops, such as peas, alfalfa and the clovers, is doing most excellent work. The interest

along these lines is great and, fortunately, is rapidly increasing. Any system that will increase the fertility of land deserves attention. No one system is suited to all localities. But the system that I will describe here may be used profitably over a large area of the State. So far as I know, it is a new one. Mr. W. Kessinger, of Giles County, Va., originated it, and has followed it successfully for a number of years. He has quit buying fertilizers. He makes a good profit and his land is becoming richer each year.

The land is broken deep in July. It is then put in fine tilth the last of July. Then he mixes one bushel of rye with one bushel of Japanese buckwheat and drills this in on each acre. At the same time he sows with the drill about one and one-half gallons of sapling clover to the acre. These seeds might be broadcasted and harrowed in, but are likely to do better if drilled into the soil, since seeds need more covering in mid-summer than in early spring.

The buckwheat can be harvested in sixty days, and the rye makes such a good start before winter as to afford good fall pasture for such small stock as calves, care being taken not to let them on the ground when it is wet. The last of the following June the rye is ready for harvesting. The sapling clover ripens and makes seed last of July. This heavy crop of clover is then turned under, and rye and buckwheat sown again. The clover reseeds itself. A few crops of this kind soon bring the land up so that it will produce excellent wheat or corn without any fertilizer. If a new field is to be seeded he cuts some of the clover when in seed and sows the seed in the chaff on the new field. Seed is only purchased to start the rotation. Sometimes a little lime and wood ashes are added to the land to neutralize any acidity of the soil that may exist, and also add a little phosphoric acid and potash for the clover.

Here is a system that appeals to me most forcibly, since I would get three crops with one preparation of the soil. The expense is very small. Rye and buckwheat make excellent feed for stock. There is also a good demand for these seeds at the mills and in the grain markets. The cost of clover seed, which is quite an item, is obviated after the first year. Very thin land will bring a crop of rye and buckwheat. After the first crop the clover furnishes the fertilizer and adds humus to the soil. Will some farmers in the State try this experiment on their land and report results in the Planter for the benefit of others.

R. H. PRICE.

Montgomery, Co., Va.

CORN FODDER.

Editor Southern Planter:

It would seem that it is almost too early to talk of saving corn fodder, before the corn is even planted, but after reading my article, you will see that this phase of the question is timely. We are confronted with the problem of high-priced, inefficient labor, and a scant supply of it, at that, so it behooves us to make our plans accordingly. One of the heaviest and most unprofitable jobs on the farm is the cutting of corn at the ground and the handling of it till it is disposed of by cattle. To my mind, there are many objections to this system, objections that are accentuated by the labor conditions now prevailing. Every autumn at corn-saving time, the question arises, shall we cut the corn before the grains are thoroughly ripe, and so save it before the fodder is all burned up below the ear, or shall we wait until the grain is ripe and let the fodder dry? I have never seen any conclusive experiments which showed the amount of corn lost by its being cut before attaining full maturity, but I firmly believe that more pounds of corn are lost than pounds of fodder saved by this process. One of the greatest obstacles to accurate experiment is for farmers to allow themselves to be deceived by the eye. As an illustration of this, thirty years ago, I had a piece of corn on exceedingly rich, moist land, on Kanawha bottoms. My manager asked me to let his wife plant a patch of beans on it, to which I agreed, he saying to me, "That land is so rich that beans can't hurt the corn, nor anything else." I had the piece of land measured in which the corn and beans grew together, and had another piece measured of exactly the same size, in which there was corn without beans. There seemed little appreciable difference between the two while they were growing, and even at maturity, but when the corn was shucked that with the beans measured exactly a third less than where the corn had been grown by itself, and by weight the difference would have been still greater.

To go back, however, to saving the fodder. I, for one, am going to leave the fodder at and below the ear to dry up on the stalk, and just save the tops, believing that the small amount of blades saved below the ear will not begin to pay for the enormously increased cost of cutting up and shocking, hauling heavy stalks, cutting or shredding and feeding, and handling rejected parts. I believe that in the rough handling of shucking or pulling off, and in hauling, there are more blades broken off and lost than there

are green blades below the ear when it is cut up. Then think of the great difference in cost between gathering corn on the standing stalk and from the shock, also of the difference between bright, nice tops, and the usual mouldy cut corn fodder. As for the stalk itself below the ear, I have never been able to reduce my stock to eating that in any form. I shall not cut stalks down, but shall plow them under, about which there is no difficulty if there is a heavy chain looped from the plough beam to the mould board.

In regard to the practice of cutting and burning stalks, it cannot be too strongly condemned. I consider the country fire fiend, who persistently burns stalks, brush, corn cobs, dead grass on fields, or anything that could be made to shade a gall, stop a gully, mulch a tree, increase the compost heap or add humus to an arable field, as little better than the fire bug who burns dwelling houses in town. I have heard these fire faddists say that the resulting ashes were just as serviceable as the articles burned. I would like very much to confine some of them for a while to the ashes left from cremating their own meals, to see if they should find this as nourishing and palatable a diet as the food in its original state. When I said that my article about corn fodder was timely, I meant that those who decided now against the common system of saving fodder, could use, during the spring season, some of the labor fund that otherwise would be needed for saving fodder, to provide more hay, either from grass, peas or soy beans, to make up for the deficiency of stalks.

J. C. EARLY.

Campbell Co., Va.

We are unable to concur with our correspondent in his views as to the proper course to be taken in saving the corn crop. As is well-known to our readers, we have always opposed the practice of pulling blades and cutting tops and leaving the stalks to waste in the field. Analysis in the laboratory and practical demonstration in the feeding barn, has conclusively shown that nearly one-half the food value of the corn crop is contained in the stalks, blades and tops. To waste this half, or any considerable part of it is bad farm economy. The stalks and fodder, rightly saved and properly prepared for feeding, should, in the results accruing from the feeding, in the way of beef, milk and manure, largely repay the cost of producing the corn crop. If the crop is cut at the proper time, both corn and fodder can be saved without loss in yield. Pulling the blades and cutting the tops has been proved to result in consider-

able reduction in the yield of corn per acre. In a subsequent issue we will more fully discuss this subject. Meanwhile, we should like to hear from corn-growers on the question.—Ed.

BROOM SEDGE.

Editor Southern Planter:

It has been customary with a certain class of farmers to speak with great contempt of broom sedge, and it would seem that on a farm in a high state of tillage there would be no place for it, but even in this case, it has its uses. In its place it is one of the most valuable grasses we have. First, it has mercifully stepped in and prevented thousands of acres of neglected land from washing into hopeless gullies. Secondly, I believe that more beef and butter have been made in Virginia from broom straw than from all other grasses put together. There are many kinds of broom sedge. There are three prominent kinds in Virginia—first, the mammoth kind, or big broom straw, as it was called after the war, from the stalks of which many brushes were made; second, there is a kind prevalent in better sections of the Piedmont country, which grows right up from the ground, in heavy bunches, and which, on good land, affords excellent pasturage, and will even make fairly good hay. Then, there is a third kind, which grows on poorer, sandy soils, and which cattle do not like to eat when they can get anything else. This kind starts out along the ground, and then turns up. The stems are flat, and, in the spring, the leaves have a reddish cast. All grasses are quickly susceptible to the kind of soil in which they grow, but none are as much affected by this as broom sedge. On a rich, moist soil, cattle will soon graze the two first-named varieties out of existence. I mean by this to state my belief that the finer grasses on the better soil do not crowd out the broom sedge, but that the succulence of the latter continued through the whole summer, causes the cattle to graze it to death.

To get the largest benefit from a broom sedge pasture, the land should be smooth enough to be closely mowed in the late autumn or early spring, rather than burnt over, as the latter not only destroys much fertilizing matter, but burns up most of the seed of one or two little annual clovers which furnish many a succulent bite amongst the broom sedge in the early spring. Then, at mid-summer, if you have broom-straw on a piece of good land, and will mow it down to the ground, as closely as possible, you will get

a crop of such tender young grass as nothing else will furnish you at that time, in our hot, dry climate. These remarks are intended exclusively for the first and second kinds of broom straw mentioned above. I do not know whether the little red kind can be made palatable or not. Possibly the trouble with it may be lack of nitrogen. I have seen fruit trees with reddish, diseased looking leaves, entirely changed by a slight application of nitrate of soda.

J. C. EARLY.

Campbell Co., Va.

We should be sorry for our readers to think that in publishing this article we stand as indorsers of the policy of perpetuating broom sedge in the South. In our opinion the best that can be said for it is that it is the effort of a good Providence to cover up the blunders of man and prevent the disastrous results which would follow those blunders were the face of nature left continuously bare to the wasting and washing climatic conditions prevalent here. That man should be satisfied to allow this miserable substitute for good, nutritious grasses, clover and forage crops, to continue defacing our beautiful country seems to us beyond belief. While it is possible that some grazing may be obtained from a broom sedge pasture, yet when compared with what might be obtained from the same area of land if put into the best grasses and clovers, its value is as nothing. Beyond preventing the wasting of the land, it adds nothing to its fertility or fitness to produce other crops, however long grown, and its pestiferous seeds fly all over the country side, and fill other lands with the nuisance. It ought to be treated as a noxious weed, like the Russian thistle, and its being allowed to seed be made an offence punishable by law.—Ed.

THE SOY BEAN.

Editor Southern Planter:

The soy bean is one of our most valuable leguminous crops, rivaling the cowpea, and surpassing it in many sections where the elevation is high and the climate cool. It withstands a drouth very well, and will thrive surprisingly well on poor, dry soils. Soy beans will grow under many conditions of soil and climate unfavorable to cowpeas and other legumes. The value of the soy bean as a soil improver has been known to the farmers of the State for many years but the characteristics of the different varieties, are, as a rule, not well understood. This

is unfortunate, for some of these varieties are worthless, while others are good grain and forage producers.

Several varieties were grown on the Station test plats last season, which failed to mature seed, while others matured seed early in September.

The soy bean commonly used throughout the South, is an excellent variety for many sections, but failed to mature seed at Blacksburg last season. This bean was sold by the seedsmen without any variety name for many years, but was given the name of Mammoth Yellow by this Station on account of its large growth, and to distinguish it from other varieties. Lately this variety has been advertised by some of the seedsmen under this name, and we hope to be able to get every seedsman throughout the country to give the soy bean that they are selling some definite name, and then the useful qualities of the several varieties can be determined.

The best yielding varieties at this Station last year were, first, the Japanese, which matured September 1st, and gave a yield of 16.25 bushels per acre; the second best yielding variety was the Itho San Yellow, which matured seed September 17th, and gave a yield of 14.3 bushels per acre; the third best yielding variety was the Extra Early Black, which matured September 1st, and gave a yield of 13.2 bushels per acre. The Holybrook and Breck's soy bean, which are similar to the Mammoth Yellow, failed to mature seed at this station, but would no doubt do so on the Coastal plain region.

One can readily see that a great mistake could be made in buying seed of the soy bean without knowing the variety name and understanding something about its date of ripening and yielding power.

At present it is not known by the writer where seed of the Japanese pea soy bean can be obtained; but the Virginia Experiment Station expects to have seed of this variety to distribute in small quantities among the farmers of the State this fall.

Those receiving seed will be expected to grow the beans under our direction and sell them to their neighbors at a reasonable cost so that any desiring to test the value of this crop may have an opportunity to do so.

Any information concerning the different varieties of the soy bean, or their value in the rotation, will be cheerfully furnished by the Station.

P. O. VANATTER,
Department of Field Experiments.

Va. Exp't Station, Blacksburg.

WILL IT PAY TO HAVE A SILO?

Editor Southern Planter:

The silo is no longer an experiment. It is now recognized as an indispensable part of the equipment of the farm in many sections of the country, and because of its great economic value and special adaptability to "conditions" in the South, it is to be hoped that its virtues may become more widely appreciated within the next few years. In sections of the country where dairying is a paramount industry the silo is regarded with the greatest favor. In localities where the feeding of beef cattle is the chief concern, it has not made so much progress. There seems to be an unreasonable prejudice against the use of silage for beef cattle. It is difficult to understand this opposition, for many of the reasons advanced against the use of silage are not well founded.

Every great live-stock section has some food which seems to be peculiarly adapted to it, and which, as it were, is regarded as a specialty. In Great Britain the root crop is utilized very largely for the feeding and maintenance of domestic animals. It is also a crop of great importance in Canada, where Indian corn does not thrive so well as in the United States. Throughout the Northern and Western States corn is the great staple crop, fed either dry or in the form of silage. In the South, where animals can find fairly good picking throughout the greater part of the year, and where land is cheap and much of it thrown out, comparatively little consideration has been given to preserving a large quantity of cheap roughness for the winter feeding of beef cattle. As a matter of fact, the South should utilize silage more freely than any other section of the country. First, because it is the cheapest foodstuff the farmer can produce, and second, because of the variety and excellence of the crops he can utilize for silage. It was the general impression for many years that a fine quality of silage could not be made from sorghum. This idea was founded largely on the experience of men in the Northwestern states, where the sorghum crop does not reach the perfection found in the South. For many purposes sorghum silage is superior to corn, and some of the most serious objections that can be urged against its use disappear when its splendid drought-resisting qualities and the large yields obtained are taken into consideration.

The South has not made that progress in live stock husbandry which the natural conditions favor, and

which the poverty of the soil renders little short of a necessity. More systematic methods of farming must be pursued in the future. More land must be laid down to grass to keep it from washing away. More stock must be kept because of the necessity of adopting a rotation of crops and raising a greater variety of forage on the average farm, which must be marketed in the most economical manner. How shall this live stock be maintained and rapidly fattened when it becomes necessary to take them off the pastures in the fall? Tame grasses and hay cannot be depended upon because the drought frequently cuts them short, and at best hay seems to be an expensive item, owing to the necessity of frequent reseeding and to the many failures which are experienced before a perfect stand is obtained. Do not infer from this statement that pasture cannot be had, for some of the pasture grasses are practically permanent in their nature and can be utilized for an indefinite period. But do not forget at the same time that these grasses are not the most valuable for hay. The problem, then, is to find some cheap substitute for hay and roughness.

The question of concentrates is not a difficult matter to solve, because of the abundance and comparative cheapness of cotton seed meal, which can also be supplemented in the feeding of all classes of live stock with hay of the finest quality, made from a great variety of leguminous crops. It is at this juncture that the value of the silo becomes apparent, for it provides a cheap and easy method of preserving large quantities of the most desirable winter roughness in a cheap and palatable form. Suppose, for example, that sorghum is grown in drills three feet apart, and is cut with the corn harvester and set up in shocks and field cured. Before the rains of winter come on, it will be necessary to put this sorghum in the barn or have it suffer serious loss through the heavy rainfall to which it would be exposed for several months, as it is impossible to stack the sorghum up on account of the high moisture content which will induce heating, and an immense barn would be necessary to shelter it, whereas, the same quantity of food could be put in a comparatively small silo that would cost but a trifle as compared with the barn. While it is true that sorghum fodder and shredded stover can often be fed to good advantage, it is also a fact that the loss of feeding nutrients sustained through the exposure of these crops to the weather is very great; so great, in fact, as to make their housing and protection a matter of necessity.

Before you can sell a man anything it is necessary to convince him that he needs it, and so it is with the silo. It is of but little use to tell how to construct a silo before you convince the farmer of its value. Having done this he will listen to you, and no doubt profit by what may be said later on. The drought periods of the late summer render the use of soiling crops a necessity for two reasons; first, a deficiency of grass; and, second, the importance of keeping the live stock in a thriving condition. It is true that soiling crops may be utilized to tide over the emergency, but these are very expensive and unsatisfactory. A well-filled silo furnishes food in a more satisfactory form than soiling crops and at a much lower cost, as all who have had experience will admit. There is no trouble about preserving silage and keeping it in the best condition for summer feeding, even in the South. The difficulty of preserving sorghum in the form of fodder has already been mentioned. It makes little difference whether it rains or not, the silage can be put up and preserved in the best condition. The operation is done at one time. The great labor of the year in fact is performed in two or three weeks. Then, the feeding of the live stock is rendered so simple. One man can feed silage with grain to a large number of cattle, whereas, several would of necessity be engaged in hauling and handling the food throughout the winter where roughness is used and the feeding is conducted on a large scale.

Silage has another advantage in the South which has not been fully realized. It is the ideal food-stuff to be used with cotton seed meal, which, when fed by itself, to beef cattle or to dairy cows, seems to upset the digestion. Under similar conditions, when fed with silage, no difficulty has ever been experienced by the writer, nor has it been called to his attention through correspondence. This, of itself, should render the construction of silos a more general practice.

Besides these many advantages, the silo increases the carrying capacity of the land. One gentleman in speaking of this matter, told the writer that 25 acres in silage corn had a carrying capacity equivalent to 75 acres in Blue grass. As sorghum will yield from one-third to one-half more than corn, this would give 25 acres of sorghum a carrying capacity of 150 acres in grass. The great need of the South to-day is intensive, rather than extensive agriculture. Twenty-five acres of land carefully plowed and prepared and put in sorghum for silage will make more valuable food for the maintain-

ance of live stock than is often raised on from 100 to 300 acres of land indifferently cultivated.

Finally, there is another argument in favor of silage, which should not be overlooked. Do not understand that cheap silos are advocated. Cheap goods are not satisfactory, no matter where purchased, but a substantial and satisfactory silo for Southern conditions can be built at a moderate cost, because of climatic conditions. This is not hard to understand, as sufficient lumber of a satisfactory character is available on many farms, and then it does not require any great skill to construct a silo when the principle is understood. Furthermore, it is not essential to provide against freezes, as seems necessary in the North and West. Those who have had much experience with silos seem to be inclined to doubt the value of tar or acid-proof paper, and it is clearly unnecessary to go to the expense of boarding up the outside of the silo, unless for the sake of appearance. The abundance of stone in many sections and the ease with which it can be gotten out and handled ensures the construction of a cheap foundation. Where stone cannot be had, a concrete foundation can be made at comparatively small cost. While a roof is not a necessity, it can be made so cheaply and still prove effective, that it is desirable to have it.

These statements are advanced in opposition to the idea so frequently stated that silos are impracticable on the average farm because of the great cost. This notion is the fruit of ignorance, as a little investigation will show that a well-constructed silo can be built with a moderate outlay of money. From \$1.00 to \$1.50 per ton of capacity will build a good silo, which will last for many years, with reasonable care in keeping the inside painted with tar.

Who should have a silo? Every farmer should have a silo who is interested in the feeding and maintenance of live stock. Silage is not as satisfactory for horses and mules as for beef and dairy cattle and sheep, but if fed judiciously, and in conjunction with pea hay, it will be found a great advantage, and will lessen the cost of the ration. Many farmers who have undertaken stock farming have given it up in disgust because they said there was no money in it. The difficulty frequently has been that the cost of the foods utilized was out of proportion to the sale price of the animals. This was due to two things. The foodstuffs were not well cured and handled, and the cattle were not "finished," and hence did not bring the highest market price. It is

needless to say that the silo is not a panacea for all ills, but at the same time it would have smoothed the pathway of many a stock feeder and reduced the outlay of food, resulting in more satisfactory gains, a better finish to his animals, and consequently larger profits.

The silo may be built at any convenient time, from early spring until the first of August. If early maturing varieties of corn are used, the crop will be ready for the silo by the 15th of August to the 1st of September, and it is well to have the structure the 1st of September, and it is well to have the structure may become thoroughly seasoned. Any defects can then be remedied and the inside coated with hot tar, which is the best and simplest preservative to use. The method of construction followed will be governed by many conditions, and so an endeavor will be made to discuss briefly some of the types of silos now commonly in use, and which are regarded with the greatest favor, for the benefit of those who contemplate building at an early date. One reason why the silo has not made greater progress is due to the unfortunate experience of many who built them some years ago, when comparatively little was known about them. Naturally, many structural mistakes were made. As they were not properly ventilated they decayed very rapidly. The style of construction followed was expensive and not adapted to our climatic conditions. With the information available at the present time, there is no reason why these structural errors should be repeated, and those who may contemplate building should not be deterred from doing so through the belief that a good silo is an expensive luxury, and must be rebuilt every few years.

ANDREW M. SOULE.

Dean and Director.

Virginia Experiment Station.

GRASS GROWING IN THE COTTON STATES.

Editor Southern Planter:

The soils and climate of the cotton sections of America are not well adapted for growing the species of improved grasses usually grown in cooler climates. Except Bermuda and Johnson grasses, and, on moist soils, Red-top, there are, in the cotton sections, no useful grasses which can properly be called permanent.

Bermuda grass is a very satisfactory grass for summer use wherever cotton succeeds. It is, however,

very tender, and dies down to the roots in the early fall. Its roots form a thick mat in the soil, and will not permit any other grass to grow along with it. A mixture of Bermuda grass and Burr clover makes a good, permanent, all-the-year-round pasture—the Bermuda occupying the ground during the summer, and the clover during the winter season.

Johnson grass makes excellent hay on rich, moist soils, but the seed are apt to be carried into arable fields, where the grass becomes a bad weed, and very difficult to eradicate. It is not suitable for a mixture.

In many localities the soils of the cotton region are lacking in lime, and are apt to be too acid for growing clovers and good grasses. Therefore, before sowing grass seeds the soil should be heavily limed.

Use 30 to 50 bushels of unslaked stone lime per acre. Place the lime in piles of one-quarter to one-half bushel each, and cover with moist soil, or wet each pile with a bucket of water, and then cover with soil. When slaked, spread evenly and harrow in at once.

A moist grass field should be top-dressed every fall with a mixture of one part muriate of potash and two parts of ground bone. Use the mixture from 600 to 1,200 pounds per acre. Dry, upland pastures are better top-dressed in spring, with acid phosphate, and some nitrate of soda in place of the ground bone, or add this to the muriate of potash.

FORMULAS FOR GRASS MIXTURES.

1. For permanent pasture, light upland soil:

Tall oat grass.....	10 lbs.
Meadow fescue grass.....	4 lbs.
Hard fescue grass.....	4 lbs.
Red fescue grass.....	4 lbs.
Hungarian Brome.....	5 lbs.
White clover.....	1 lbs.
Black medic.....	$\frac{1}{2}$ lbs.
Bokhara clover.....	$\frac{1}{2}$ lbs.
Sand Vetch.....	5 lbs.

Remarks:—Mix the seeds and sow in early fall upon well pulverized soil, which has been recently limed. Cover seed in with a light harrow and roller. This makes good sheep and cattle pasture.

2. Permanent pasture, upland soil:

Burr clover.....	15 lbs.
Bermuda grass.....	4 barrels cut roots.
White clover.....	3 lbs.

Remarks:—Sow the Bermuda roots in early spring in drills four feet apart, and cover four or five inches deep. Then broadcast the White clover seed and roll the land. About September 1st, scarify the land with a disk harrow, sow the Burr clover, and roll the land. This makes an evergreen pasture of a very nutritious quality. Must be scarified and rolled each fall, but no additional seeding will be required. Top dress each fall with 600 to 1,000 lbs. of a mixture of equal parts Kainit and Phosphate. Apply 500 lbs. of lime once in three years.

3. For permanent pasture on moist or clayey soils:

Orchard grass.....	8 lbs.
Red Top.....	4 "
Meadow fescue grass.....	8 "
Red fescue grass.....	4 "
White clover.....	2 "
Red clover.....	2 "
Burr clover.....	2 "
Bokhara clover.....	$\frac{1}{2}$ "
Sand vetch.....	5 "

Remarks:—This mixture is well adapted for grazing for horses and cows. The pasture will require an annual top dressing of phosphate or bone meal and muriate of potash. Apply 1,000 lbs. caustic lime in fall of every third year. The droppings of grazing animals should be broken up and scattered once a month. Before seed is ripe mow clumps of orchard grass left uneaten. If a sheep pasture is desired, substitute Black medic for Burr clover in this formula.

4. For permanent meadow, moist loamy soil:

Orchard grass.....	15 lbs.
Tall fescue grass.....	15 "
Red clover.....	5 "
Bokhara	$\frac{1}{2}$ "

Remarks:—This formula gives an early cutting of good hay, and a smaller cutting in fall. May be pastured during winter months.

5. One cutting mixture, fall sowing:

Red rust-proof oats.....	32 lbs.
Winter rye.....	16 "
Crimson clover.....	5 "
Scotch vetch.....	5 "

Remarks:—If sown about September 1st, the mixture will afford good pasture from Christmas to March 1st. If stock are then removed, a heavy cut-

ting of excellent hay can be secured about May 1st. Cut when oat grain is in dough stage.

6. One cutting, summer growth, for silage or shocked fodder:

Mosby or horse tooth corn, quantity sufficient.

Whippoorwill, black or cow pea, q'n'y sufficient.

Remarks:—Drill corn so as to get one stalk every 8 to 10 inches; drill the peas six inches from corn drill, and about twice as thick. Have the double drills thus made about $4\frac{1}{2}$ feet apart. Cultivate the wide middles as usual, but not the narrow space between the double drills.

Cut and ensilo when the corn seeds are well glazed. If cured for fodder, cut when peas are ripe. This crop must be heavily fertilized, especially with potash and acid phosphate.

7. Permanent pasture for hogs, upland soil:

Bermuda grass.....	2 bbls. cut roots.
Chuffas	30 lbs. tubers.
Burr clover.....	5 lbs. clean seed.
White clover.....	2 " " "
Bokhara clover.....	4 " " "
Sand vetch.....	10 " " "

Remarks:—Plant the Bermuda roots and the chuffas in alternate drills, 6 feet apart. Cover 4 to 6 inches deep. Then harrow in other seeds. This mixture will require an annual spring top dressing of acid phosphate and muriate of potash. Apply 750 lbs. lime every second fall.

8. Permanent pasture for hogs, moist soil:

Jerusalem artichoke.....	2 bus.
Chuffas	20 "
Bokhara clover.....	$\frac{1}{2}$ lb.
Burr clover cleaned seed.....	5 "
Sand vetch.....	5 "
Bermuda grass, cut roots.....	1 bbl.

Remarks:—Plant Bermuda roots, artichokes and chuffas in alternate drills, about 6 feet apart. Cover 4 to 6 inches deep. Broadcast other seeds and harrow in. Top dress annually in fall with muriate of potash and bone meal.

9. Permanent pasture for fowls, dry soil:

Tall fescue grass.....	5 lbs.
Hard fescue grass.....	5 "
Black medie.....	3 "
Burr clover, cleaned seed.....	5 "
Sand vetch, " ".....	10 "
Red clover, " ".....	4 "
White clover, " ".....	1 "

Remarks:—Mix and harrow in seed. Sow in fall. Land must be in good tilth. Top dress with 750 lbs. lime every second year.

Raleigh, N. C.

GERALD McCARTHY.

CORN GROWING.



Editor Southern Planter:

I enclose you a photograph sent in by Mr. David J. Ott, of Rockbridge Co., Va. Mr. Ott has undertaken, on my suggestion, to select and improve a strain of corn which he has been growing for some time, and he has been good enough to send us the accompanying photograph, which shows the picture of two stalks of corn, the one on the left being 15 feet tall, and the one on the right $9\frac{1}{2}$ feet. He states that this corn produced an ear about $10\frac{1}{2}$ inches long, with 20 rows of good, ripe grain. The sample of the grain enclosed to us for inspection is very fine indeed, and we believe if Mr. Ott will follow up the work he has so well begun, and select his corn for a few years, he can develop a variety well suited to many sections of Virginia, and, as we have shown by our investigations, the home-grown seed corn will be the most desirable for our farmers to use. The picture is striking, in that it shows the difference in stalks of corn from the same field. We, of course, object to the tall, slender stalk, because it is more likely to be broken down in violent storms; and then, there is no use in growing such a big, coarse stalk, as it is simply a heavier draft on the food constituents of the soil, and tends, in fact, according to my observation, to reduce, rather than increase, the percentage of grain and type and character of the ear, in proportion to the total yield of fodder. Our bright sunshine tends, apparently, to cause corn to grow taller in the South than in some other sections, and we must select systematically to counteract this tendency of our climate. The photograph is, therefore, interesting and instructive, and may convey an idea of value to many of our farmers who are interested in the subject of corn improvement at the present time.

ANDREW M. SOULE.

Trucking, Garden and Orchard.

WORK FOR THE MONTH.

The weather during the month of April to the 20th inst. has been genial and spring-like, and the land has warmed up nicely, and is now in good condition for the planting of all the staple garden crops. We regret to learn that considerable damage was done on the 22nd April by a heavy hail storm in Eastern Virginia, which cut up the strawberries and early planted crops badly. Wherever the crops are seriously injured it will be wise to plow them up and replant on a fresh seed bed. Trying to patch up a damaged crop by partial replanting rarely succeeds. Let the full crop of all the vegetables be gotten into the ground as soon as possible. English peas, onions, spinach, carrots, beets and Irish potatoes should be put in first, then follow with sweet corn, snap beans, lima beans, pole beans, squashes, cucumbers, cantaloupes, melons, tomatoes, peppers and egg plants in succession up to the end of the month, when sweet potatoes may be planted out. Before planting any crop freshen up the land by working the rows over with the cultivator. We assume that our advice given in previous issues has been followed and that the manure and fertilizer has all been previously applied, and the land thoroughly worked and put into fine order. It is no use attempting to grow good vegetables on poor, badly prepared land. To be good, all vegetable crops should be grown quickly, and this necessitates rich, finely worked land. It is possible, however, to have the land too rich for the growth of English peas and beans. When over-rich these crops are apt to run to vine, and not pod well. Before planting, the tall lima, butter and pole beans, have poles well set in the land for them to run on. Too often these poles are not driven sufficiently deep into the soil and then, when covered with the vines, a strong wind comes up and the poles are blown over and much of the crop is lost.

Onion sets and onion plants raised in frames, should be planted out at once in rows, wide enough apart to be cultivated with a small Planet, Jr., cultivator. Set the sets and plants about four inches apart in the rows, and when the bulbs begin to form the soil should be worked away from them, so that the onions may mature on the top of the ground. Where plants have not been raised

seed should be at once sown in drills a foot or fifteen inches apart. Sow rather thickly, so as to insure plenty of plants. When the plants are as thick as quills they should be thinned out so as to stand about three inches apart. Pearl, Southport White Globe and Prize Taker are good varieties to grow.

Irish potatoes may still be planted for an early fall crop, but tubers raised from this crop will not keep well over the winter.

Sweet potatoes should be planted out at the end of the month, or in the early part of June. The land should be light and loamy, in a good state of fertility, but not over-rich, as this has a tendency to make vines instead of potatoes. If fertilizer is needed, it should be made up of 150 pounds of nitrate of soda or 350 pounds of cotton seed meal, or half of each, 100 pounds of acid phosphate and 100 pounds of muriate of potash. This quantity to be applied per acre, and be well worked into the land before setting out the slips. The average yield of sweet potatoes in the South is much less than it ought to be. We have a report of 145 bushels being grown on one-fourth of an acre of land in Chesterfield County, Va.

Cucumbers, melons, and cantaloupes should be planted as soon as the ground is warm. For cucumbers make the hills four feet apart each way, for cantaloupes make them five feet apart each way, and for melons make them eight feet apart each way. The land should have been deeply plowed in the early spring and the soil should now be thrown out in the line of the rows deeply with a plow, throwing the soil out on both sides of the furrow, and then the soil in the bottom of the furrow, should be broken deeply with a coultter or bull tongue, so that it will hold moisture. On this loose soil in the bottom place at each hill one or two forkfuls of manure, and spread evenly, and on this spread a handful or two of rich fertilizer, made up of acid phosphate, potash and ammonia, having an analysis of say, 6 per cent. ammonia, 4 per cent. phosphoric acid and 7 per cent. potash, and work into the manure, and cover with three or four inches of light soil, which make compact, and then plant in each hill five or six seeds.

After the plants have made three or four leaves, thin out to one or two plants in a hill and keep well cultivated until the vines begin to run. Keep a look-out for melon bugs or you may find all your plants gone. The best and only sure way to save the plants is to cover them with plant-bed muslin stretched over small boxes with the bottoms knocked

Tomato plants should be set out this month. Have them well hardened off before setting out. Set in rows three feet apart, and three feet apart in the rows. A light sandy, loamy soil, well drained, is the best for this crop. Good barn-yard manure is the best fertilizer to use, but as this is rarely to be had in sufficient quantity, except for small patches, it may be supplemented by fertilizer made by mixing 800 pounds of acid phosphate, 300 pounds of muriate of potash and 700 pounds of cotton seed meal, using this at the rate of 500 or 600 pounds to the acre, and then, as the plants commence to grow, they should have two top-dressings of nitrate of soda at the rate of 200 pounds to the acre, applied at intervals of ten days or a fortnight, and spread around the plants. The influence of nitrate of soda in securing a good yield of tomatoes is very marked. Care, however, should be taken in applying it, not to let it come in contact with the vines or it will burn them.

TOMATO BLIGHT.

I have never experienced much loss from tomato blight in the greenhouse. If such loss were threatened at any time, I would quickly resort to the free use of Bordeaux mixture. In fact, I propose to try some spraying with that standard fungicide in the greenhouse this season, and this simply as an additional precaution. After the plants are set in the open ground, however, there is always considerable chance of loss by blight. Therefore, I never omit spraying the plants then, and I am satisfied that my very slight loss due to blight must be credited to this practice. Very much more serious than in the tomato patch, is this leaf-blight on egg plants. I doubt that I would have much success growing egg plant without the free use of Bordeaux mixture. The plants are bound to blight and only by keeping them covered at all times with a protective film of the mixture has it been possible for me to keep my plants, or most of them, in healthy and bearing condition until frost. This treatment has the additional advantage of driving the destruc-

tive flea beetle away, and this enemy is often quite troublesome on these plants, especially the egg plant, and peppers also. If we spray the whole list of these plants from the time they are set in open ground until the later part of the season, or until the period of harvesting the crop, we may expect only comparatively slight injury from blights, if not entire exemption.—Practical Farmer.

IRISH COBBLER.

The Irish Cobbler potato originated, at Lumberton, Burlington Co., N. J., in the garden of an Irish shoemaker (or cobbler). He planted potatoes for his family use in his garden in the spring as usual, and early in the summer he noticed several hills that were nearly dead long before any of the rest began to ripen. Thinking they were diseased or premature, he decided to dig them and use what few they produced, but to his great surprise he found a crop of well-matured potatoes. He saved them and planted them the next year, and a basket of them were taken to the Burlington County Agricultural Fair held at Mt. Holly in the fall and asked for a name. The committee of awards gave them a premium and named them Irish Cobbler. I cannot tell the year they were named but they have been grown in Burlington County for many years. They were introduced into New York by C. W. Ford, who secured a barrel of seed and sent it to his farm at Fishers. That barrel was packed in my cellar. They were introduced into Maine by the Moorestown Grange, which sent seed there to have it grown for their use the following year. Since then they have been distributed all over the country and are one of the best of early sorts. Moorestown Grange uses each spring one or two car loads for seed grown in New York and Maine.

G. L. G.

Moorestown, N. J., Country Gentleman.

EIGHT-WEEKS LETTUCE.

A Washington letter says that lettuce the size of a cabbage head is now being grown by the Department of Agriculture. This species weighs four or five pounds, and the heads are as hard as a head of cabbage. This product has raised great surprise in the agricultural world, especially as the new species of lettuce can be grown in eight weeks from the time the seed is planted, while heretofore it has required twelve weeks to produce an ordinary head of lettuce. This product is the result of hybridizing two species of ordinary lettuce.—Country Gentleman.

Live Stock and Dairy.

DUROCS AND THE SOUTH.

Editor Southern Planter:

No hog perhaps has arisen into prominence so rapidly, and with as well deserved popularity, as the Duroc. Not only is this true in the North and West, but also in the Southern States, notwithstanding a certain prejudice, growing out of the belief that the beautiful, quick maturing, well proportioned Duroc, was the one and the same red hog as the old "Jersey Red." The Jersey Red, as is well known, is an ugly old brute, with slab sides, and no more entitled to the name red, than is yellow clay. They are now scarce throughout the country in the face of the influence of many improved breeds that have made their impress on all classes of scrub stock.

The improved and registered Duroc, while red, is a beautiful cherry red, and a finely developed animal, maturing readily at almost any age, in fact can be fattened as promptly and early as any improved breed of hogs. This must be true or specimens of this breed could not have stood champions over all colors as they have done, and in consequence, are commanding the highest market prices, also the top prices for breeding purposes. The great "Ohio Chief," champion at the St. Louis World's Fair, has but within a few weeks changed hands at \$2,000.00, going from the herd of S. E. Morton & Co., to that of Osborne & Co., of Nebraska. Likewise, the coming young sire, "Sure Winner," has gone to the herd of D. W. Brown for several hundred dollars, perhaps \$1,000.00, not known exactly, as both parties to the transaction decline to disclose the figures.

The writer takes justifiable pride in stating that he has at the head of his herd what he believes to be the best son of this noted hog, secured from one of the best and largest herds of Durocs in the United States, viz., Messrs. S. R. Quick & Sons, Gosport, Indiana. We of the South especially, cannot be too careful in selecting our herd stock, for, as the advance has been *slow*, until we are far behind, we must now make it *sure*, step by step, and not have to revise our course.

There are many reasons, in the opinion of the writer, for the adoption by the Southern breeder of the Duroc breed of swine in preference to any other. In the first place, it is well known that any black animal suffers more from heat than does one of another color. A white horse endures heat better

than a black horse, a light colored hat is cooler than a black one, we wear light clothes in summer because they are cooler than dark ones. My reference to the black and white horse might seem to be applicable to the black and white hog in the South, but here again is a well known fact, namely, that white hogs are very subject to mange. It is difficult to keep their skin and hair in good condition. The skin gets scurfy and the hair full of dandruff, which at once gathers the dirt, and a mangy condition follows. Those who have had more experience than myself claim that the red hog endures the heat of the South better than either the black or white.

The Duroc is conceded to be the best forager in existence, and in those sections of the South where we have but wild grasses, the Duroc seems to be perfectly at home and thrives well. There is no breed of hog with better bone and constitution. They are large and growthy, and while rangy, are good feeders and respond promptly to the fattening rations. Some of the Experiment Stations have fed them for results as a bacon hog, and have been surprised at the very satisfactory returns.

The characteristics last mentioned, we understand, are as valuable to breeders in other parts of the country as to those of the South, and in this connection it is not amiss to mention the fact that they are most wonderfully prolific. Gilts very seldom have less than eight pigs, and not infrequently from ten to twelve, a sow from ten to fifteen or sixteen, and even fabulously large litters have been reported. But more than a sow can properly nourish is to be discouraged, since the weaker pigs must sooner or later perish.

The average farmer of the South, because of the advantages of the mild climate, has not learned to give the proper protection to swine. But it must be remembered that while the Duroc will endure as much as any other breed, all young pigs must be protected in times of damp weather, by providing them with dry beds. There is nothing that will cause the loss of their tails, and frequently the tips of their ears, so often as a wet bed. When quite young, the pig, and all other young animals, for that matter, must have our most careful attention, but after they are able to get out of the nest they will endure almost any hardship, and yet it is not advisable to try them, since we well know that any class

of stock will give us better returns if receiving proper care. There are those with whom any breed is a success because of the proper care given them, and there are others who will condemn and make a failure of any breed on account of neglect.

The South is unquestionably a good country for the production of first-class swine, and we predict for the near future, a much better class of hogs as a result of breeders finding the proper way of feeding and handling them, and abandoning the unscientific principle of "root hog or die."

It does not pay to attempt to establish a herd or introduce good blood on Picayune principles. Economy is all right, but breeders usually have to deliver goods according to the price received. There may be extremes, but never buy a very cheap animal unless it be a very young one. It may be advisable and profitable to buy young, well bred, pedigreed pigs, on account of excessive express charges from some distant State, but even this is questionable. A well bred sow, from which one may reasonably expect a good litter, is cheaper if the express charges are one-half as much as the cost of the sow. In conclusion, we would advise, when it is possible, to buy at home, or when not, be sure you are buying of responsible breeders.

WALTER M. CARROLL.

Campbell County.

BACON PIGS.

Editor Southern Planter:

A very considerable amount of discussion, some of it of a somewhat warm, if not excited character, has recently taken place in the Canadian papers, as to whether or not the bacon curers who own the large bacon factories in the Dominion, have treated the hog raisers fairly as to the prices paid for their fat hogs. The Weekly Sun and other stock papers have taken up the question in a particularly keen spirit; so much so that the result has been a meeting of farmers' and curers' delegates to discuss the matter, with results which, perhaps, will not have proved quite satisfactory to both if to either of the parties.

The contention of the hog sellers has been that the curers have forced down the price of hogs much below the actual cost of production, and lower than the price of the resultant produce in the form of bacon and hams, in England warranted. The system which the curers assert they have adopted has been to pay the price for the fat hogs which

these would have realized on the English market if converted into bacon, and further that they have to run considerable risk as the price of bacon may have fallen materially before their product is placed on the English market. As to the last argument, there does not appear to be very much in it, as the variations in market value cannot always be against the curers, whilst the latter have a far better knowledge of the particular periods or seasons when the demand for bacon on the English market usually falls off to some extent. It appears to be very probable that unless some working arrangement is come to by the curers and the hog raisers, that both parties will stand to lose pretty considerably, as the former must continue to manufacture bacon and thus keep their employees at work, with interest being paid on the very large capital employed not only in buildings, machinery, etc., but in carrying on their business, whilst the latter cannot afford to allow so important and profitable a part of their business as pig breeding and fattening to lapse. Surely some kind of compromise might be discoverable if both parties entered into a discussion with a determination to bring to an end the present unsatisfactory state of feeling existing between them. Pig feeders must not forget the fact that, without the curers, the price of pork would be very much lower than it is usually, and further, that the demand for fat pigs would be considerably lessened; two conditions which would have a powerful influence on the market value of fat hogs and also on the fertility of their farm lands, since there is no more economical nor permanent way of increasing the fertility of the soil than by applying occasional, if not frequent, dressings of pig manure. It is thought that the bacon curers ought also to vary the price paid for fat hogs, according to their form, quality and state of fatness, then the hog raiser who produced the best article would receive some recompense for his care and the exercise of his common sense. This seems to be quite reasonable, nor is it asking anything of the curers or packers which they should in their own interest refuse, since the value of the manufactured article made from the best pigs, would realize a higher price on the English market, and would lead to a larger consumption of the particular article, and thus redound to the benefit of both the Canadian hog raiser and bacon curer or packer, at one and the same time.

This brings us to the particular point which we wished to touch, i. e., the relative cost of production of the lard and of the bacon hog types. Some of the hog breeders in Canada who have been accus-

tomed to breed the short, thick, podgy hog of the Essex, Berkshire or Poland China type, do not hesitate to declare that this kind of pig, usually termed the lard producing hog, can be more cheaply produced than the so-called bacon hog. So far as the most careful experiments have gone they prove that not the slightest ground exists for this idea, indeed the reverse holds good, as with the really good type of large white Yorkshire pig, and not the long, lanky, flat sided, coarse skinned and boned kind, which is not unknown in Canada and in the north of England and in Scotland—a given weight of the best quality of pork for conversion either into bacon or for ordinary consumption, as fresh pork, can be manufactured at less cost than with the short, chunky hog, so common on the American continent. To this advantage must also be added the increased value of the product. Again, a given number of the sows of the improved large Yorkshire type will bring forth and rear a considerably larger number of youngsters, so that greater returns can be made; but I shall weary your readers with my wanderings on a subject which has afforded me any amount of pleasure for nearly half a century.

SANDERS SPENCE.

Holywell Manor, Hunts, England.

SELECTING A RAM LAMB.



"Champion 'BATH BOY,'
6 mos. old Dorset Ram lamb."

Editor Southern Planter:

No one act of the flock master is of such serious import as the selection of a flock-header. All the work of ten long years of careful breeding may be undone by one single mistake in choosing a ram to head the flock. It is hard to advise wisely in regard to this step, for the best sheep men will differ in regard to the points of a ram. Of late years many purchase the winners at the great fairs in this country and England to head their flocks, thus trusting

to the judgment of men who are supposed to know the breeds judged. In some instances this plan has been attended with great success, but it is open to very few, and has been attended sometimes with the most egregious failures, for two reasons, viz., such rams have generally passed two seasons in the ring and the vitality is all burnt out, the snap is gone, and they become uncertain breeders, while in the second place, the rams that have won first place at the shows lack those very qualities that great breeders must have. Few judges can afford to override the popular clamor for fancy points, to give rewards for remarkable breed type and a show of power that may accompany a bit of roughness or lack of quality.

It is getting so now-a-days that very few can have a chance to pick mature rams, as in these days of push in the sheep business, the ram producers have sent all their best to the market as lambs, and only a few show rams or rams for private use grow up to the year mark on the breeding farm.

Thus it seems that the vast majority are forced to the purchase of ram lambs if they are to secure the best from the ram breeders. It behooves a man to keep astir to get the best of the ram lambs, for it is often the case that the best of the lambs are engaged before the lambs are weaned. Most of us wont have the good fortune to visit the flocks to select the ram lambs of our choice, but this wont make us the less anxious to know if we get the right kind, and we want to know how to guide the breeder to our wants, as often the breeder himself will not have the correct ideas, or certainly not always our ideas. Furthermore, it is well to have some ideal before one in choosing a ram.

There is something very fascinating about this study of ram lambs. The writer can't claim to know it all about this, as about any other matter relating to sheep, but he cherishes the hope that he may be helpful to those who may be so unfortunate as to know even less than himself about the ram lamb.

Of course, there are some points to be emphasized in choosing special breeds and certain defects to be avoided, but without knowing the breed it would be impossible to help you about these points. It is, nevertheless, true that certain general rules can be laid down that it will be safe to observe in every case.

1. Don't wait until the best of the ram lambs are sold. Get into the market early. If you are the first, so much the better. It is better to be six months ahead than one week late. If you are tardy about placing your order, don't get impatient with

the breeder because he will not let you have one of the very best. An honest breeder must give the early orders the preference if the same price is paid, and I don't think any reliable man will change prices on his ram lambs after he finds out that he can sell more than he expected at the beginning of the season. If you ever learn of a breeder offering his best ram lambs at \$25 in January, and then, about June, changing the price of a few choice ones to \$35, you had better not buy of him. He will do you in something as he is doing others who bought his best at a lower price. Pardon this advice, for I give it with the desire to be helpful.

2. Take occasion to investigate the sire. Ram lambs are rarely better than their sire. If he is good, a ram lamb that is decidedly like him will be apt to impart his qualities.

3. If possible, see the mother of the ram lamb. She should have a wide face, and large, but refined muzzle; her nostrils should be full and open. She should be deep in body, strong in bone, and should have a wide and strong tail head. Of course she should be a good milker. Never forget that the ram lamb is sure to be like his mother. You cannot get a strong, brave, masculine ram out of a weak, fastidious, spindling ewe. In choosing the ram lamb the breeding is always to be relied upon first. Often a strong milking ewe of mean quality and unquestionable breed defects may have the lustiest, plumpiest lamb in the lot. Beware! That rich milk supply has covered in baby fat a multitude of faults. Buy that lamb, and don't be surprised to find him almost as mean as his mother next year. The writer has seen a number of men select ram lambs. They were not willing to risk the judgment of the breeder. They would walk through the bunch, and finally the eye would fall upon one of those round, fat chaps, and they could never see any others as good. If they had only asked to see the mother, they would have thought twice before taking that lamb.

4. In form, demand four points. First, a short, wide face, with strong muzzle. Second, a short neck with full scrag. Third, width across top of shoulders and deep chest. Fourth, a large scrotum and full twist. You could make many more than four points out of these, but not a single one can be omitted. The wide face and deep chest insure *constitution*. The wide shoulders and full twist insure mutton form. The strong muzzle and full scrag mean strength and masculinity. The large scrotum means breeding power. The writer

never saw a ram with a little scrotum that proved a good breeder.

5. In appearance take the ram that has the bright eye, is alert in his movements, carries himself like a lord, and holds his head up as if he feels himself the monarch of all he surveys. Once the writer witnessed a great contest in England between some of the finest Shropshire rams that ever graced a ring. The rams were drawn up for review. One pen attracted universal attention for their nobby get up and remarkable uniformity. Men were heard to remark, "They are all the same." "They are sure to get it." The writer was near them and was looking right into their faces. Seeing the dull eyes of two of them and the hang-dog expression about their faces, he expressed the hope to a by-stander that the judge would look them in the face before passing upon them. His hope was realized, for the eye that missed nothing soon caught the defect and he at once ordered them off for a walk. There were two; at least, of those present, who were not surprised to see the bunch wobble along as if they would rather lie down than show themselves. These were not the kind, and in spite of their nobby get-up and matchless appearance, they deserved to be set away back. They got their deserts that day.

6. In disposition he must be ambitious, active, fearless and bold. See two lambs in a fight and you can generally depend upon the plucky one, the one that knows no such thing as quit. One of the best breeding rams the writer ever saw could stand heart-breaking punishment from larger rams. He never knew how to give up. He was born a king, and would die for his crown. In nature this is the plan for the improvement of the species. The doctrine of the survival of the fittest is based upon these points. It is not out of keeping with the above characteristics to find such a ram gentle and kind in disposition, and even fond of caressing.

An illustration often enforces one's views as no amount of talking will, so you are requested to study the cut of the Dorset ram lamb at the head of this article. He looks the ram all over. You could count on him. Sometimes it seems that the very best type of ram lambs are found among Dorsets, and then again, some of the meanest. When a Dorset is good, he is very, very good, and when he is bad he is horrid. It remains to be said that all the qualities that go to make up a great ram are as often found in a Dorset ram lamb as in any sheep that walks.

H. B. ARBUCKLE.

The Poultry Yard.

POULTRY NOTES.

The hatch that was coming off at our last writing was a very good one for March. We had 220 good strong chicks and a few weak ones. These were put in small indoor brooders, and have made good progress toward chickenhood. We lost many of our early hatched chicks during the three weeks of cold, rainy, snowy weather. Chicks cannot be kept from chilling unless one has a good, warm, dry brooder house during such weather. We had 19 days in succession with very little sunshine; rain and snow, and brisk north-east winds. When a chick is once chilled it is past help so far as thrift is concerned. When they have that tired, woe-begone look, wings dragging, sleepy, feathers ruffled, etc., they will soon cross the chilly stream. Several subscribers have written me and asked the cause and remedy for this disease. The cause is as stated above, cold, raw, damp weather. The remedy is death. I know of no other. A few will survive, but will be weak and thriftless. We have some of these now at six weeks old that are no larger than many of the next hatch, three weeks younger. A friend asked me one day, "What do you do when you lose a lot of your chicks in this way?" I bury them and hatch more. One reader asks this question: "Where do you put your brooders, indoors or out on grass?" I have eight indoor brooders, and two large, three-section, pipe, outdoor brooders. The indoor brooders are in a house 10x30 feet, with 30 inches of south side open and canvas cover. These chicks run together in the house, and are fed inside, but are allowed to run out during the day. We have about 400 chicks in the two outdoor brooders. These chicks have a covered yard, 24x30 feet, two feet high. Sides are 1 inch mesh wire and top 2 inch mesh wire. This keeps them confined, and also keeps them safe from hawks, jackdaws, dogs, cats, etc. I will keep them in this yard until three weeks old and then put them in the brooder house without heat.

One man writes: "I wish you would tell me, and all the readers of the Southern Planter, how much time and strength it will require to care for 500 hens, and raise about 1,000 chicks. I am not strong; health very bad. Do you think I could do all the work necessary." This question brings us to the same line of thought expressed in February

or March notes, viz.: putting the profits too high and the labor and expenses too low. Many articles that appear from time to time in the papers are written by men and women that never set a hen and never raised a chick. They figure it out in this way: "A hen will eat about two ounces of food per day, she will lay about 250 eggs in a year. Two ounces of feed per day means about 45 pounds in a year; say 20 pounds of wheat, 15 pounds of corn, and 15 pounds of oats. At market prices the feed will cost about 50 cents. Twenty dozen eggs at 20 cents per dozen, \$4; profit \$3.50. One hundred hens, profit, \$350; 1,000 hens, profit, \$3,500. This is easy to figure out, but it cannot be demonstrated. One dollar per hen profit is very good. The labor question is a difficult one. So many conditions enter into it that one cannot answer correctly. To feed and care for a flock of 500 hens and to raise 1,000 chick will require much time and care. Constant care. Constant attention. To raise 1,000 chicks, one must have at least two large incubators, four to six brooder houses, several covered runs. This means work. Eight lamps to fill, trim and clean daily, turn the eggs twice every day, cool them, test them, clean 4 to 6 brooders every day, feed chicks 3 to 5 times daily, give them fresh water 3 to 5 times daily, watch the temperature of the incubators and brooders. This takes time, makes many cares, many steps. Where one has many chicks it requires constant care and watchfulness. They stray away, get lost, get fast, get hurt, creep into out of the way places, but never creep out. Some one says "shut them up." Then you have weak, puny chicks. I would rather have 500 good, strong, lusty fellows, than 1,000 weaklings. They must be out doors to do well.

Five hundred hens make a lot of work if cared for right. If neglected they don't pay. They must be housed, the houses must be kept clean, free from filth, vermin and odor. Nests must be cleaned at least once a week. It will require at least 75 nests—100 is better. It will take at least two hours daily to clean houses and nests. The hens must be fed three times daily, must have clean, fresh water, grit oyster shell or lime in some form. There will be sick hens, broody hens, lousy hens to look after and care for. Eggs must be gathered, assorted, some of them washed, crates provided, feed of all kinds must be bought or made, eggs must be marketed,

and many things not thought of will arise to take your time and strength. A few hens will almost take care of themselves, but where 500 or more are kept, it is very different. The care of a large flock of fowls is very much like the care of a herd of dairy cows. It is not heavy work but the constant care *every day*, means a wear on the mind and muscle that tells in time, and the invalid that engages in the poultry business will find this too true to be healthful. It means early and late and long hours. My work begins at 5 A. M. and usually ends at 9 P. M. This is not a rosy picture nor an ideal one. It is a simple narrative of actual work necessary to succeed with poultry. The man or woman who engages in a commercial hennery will find much of *real life* in the business.

I engaged with *The Planter* to write a series of 12 practical articles on poultry. I have written 15, and with these notes bid its many thousand readers adieu. I have tried to be plain, fair and honest. I have tried to make my notes readable and helpful. I have given my knowledge, as I wish all writers could and would, from experience. I wish to extend thanks to the many persons who have written me their appreciation of my efforts to help them. I hope the good old *Planter* will find someone more competent to advise, help and entertain its thousands of readers of the poultry pages.

CAL HUSSELMAN.

Roxbury Va.

We know that we voice the sentiments and wishes of our readers when we tender to Mr. Husselman their and our thanks for the very helpful articles he has contributed. We hope that we may be able to induce Mr. Husselman to give us some more of his excellent practical advice.—Ed.

A FEW WORDS ABOUT CHICKS.

Editor Southern Planter:

Success in raising small chicks depends a great deal on the little things. The newly hatched chicks require constant care where they are kept in brooders. It is hard for a beginner to tell just what is best to feed them, when they read in one poultry paper that whole, dry, sound grains and seeds are best, and somewhere else, that there is no food for young chicks so good as baked corn bread and milk, and a mash made of wheat-bran and meat meal, and so on. Yes, it certainly is a perplexing problem to decide just what is best for them. Let me say to the beginner, good, substantial foods are

what you want, and with a little care such meals can be prepared very easily and quickly; and, above all, *do not feed them too much at a time*. More small chicks are over-fed and from this reason die than from most any other cause. I am speaking of brooder chicks remember, for the old biddy never feeds her chicks too much. As I was going to say, the new beginner must form an idea of what is best, and try it, and if it does not prove successful, don't give up, but try something else, and stick to that which proves best. It is the one who keeps on trying who has the largest flock of chicks in the end. I am just a new beginner in the poultry business, and probably one of the most ignorant. My husband is an experienced hand at running incubators, and raising young chicks; yet, I see in his last article in *April Planter* that he gives me credit for hatching the largest, plumpest, finest lot of chicks he ever saw in an incubator. He has hatched thousands of them, and I think he is surely an honest man to be willing to own to that.

This is only my second year operating an incubator, so, new beginner, don't get blue and discouraged if you don't get as many chicks as you ought to, keep on trying. If you only weigh a hundred pounds, make as much of that hundred as you can by trying to do as well as those that weigh twice that weight.

MRS. CAL HUSSELMAN.

EGG PRODUCTION.

The utility contest for egg production was conducted for sixteen weeks in England from October 25, 1905, to February 23, 1906, twenty-two pens of four females each competing. The results were as follows:

Eggs laid by Buff Orpingtons, 236; Silver Wyandottes, 220; Buff Orpingtons, 213; Silver Wyandottes, 197; White Wyandottes, 195; Buff Rocks, 191; Buff Leghorns, 182; Buff Orpingtons, 181; Black Leghorns, 175; White Leghorns, 153; Buff Orpingtons, 151; Buff Orpingtons, 148; White Wyandottes, 146; Buff Orpingtons, 145; White Wyandottes, 138; Black Leghorns, 126; Buff Orpingtons, 114; White Leghorns, 112; Black Leghorns, 103; Buff Orpingtons, 97; Silver Wyandottes, 67.

Total number of eggs laid, 3,290.

Eggs laid per hen, 51½.

This would average for a year about 167 eggs per hen, a remarkable record for 64 hens during the winter months.

The Horse.

NOTES.

A meeting of the Southwest Virginia Agricultural Association was held recently at Radford, Va., where the annual fairs and races take place. President John L. Vaughan, of Roanoke, Va., presided, while members of the executive committee present were: Ex-Governor J. Hoge Tyler, Capt. J. G. Osborne and G. T. Beamer, Radford, Va.; Maj. W. W. Bentley, Pulaski, Va., and Maj. J. T. Cowan, Cowans, Va. It was decided to hold a race meeting on the Fourth of July, and to change the date of the annual fall exhibit to September 11th, 12th, 13th and 14th, in order to conform to the circuit made up of Roanoke, Lynchburg and other places, whose meetings follow. At this meeting Samuel Walton, of Falls Mills, Va., the largest breeder of trotting horses in the State, was elected a member of the board of directors. Extensive improvements are being made in the grounds, buildings and track of the Association, which was never in a more flourishing condition or with prospects so bright. Hereafter it is contemplated to make race meetings and other amusements a fixture for the Fourth of July, that day being so widely observed and recognized as a National holiday throughout all Southwest Virginia.

The horses owned by W. N. Wilmer, the New York lawyer, at Plain Dealing Farm, near Scottsville, Albemarle Co., Va., are all doing nicely. The premier sire is Virginia Chief, a big black son of Kentucky Prince and Nina, by Messenger Duroc, second dam the great brood mare Hattie Hogan, by Harry Clay, 2:29. Virginia sires, both show ring winners and good, useful horses as well. His stud companions are his sons Abineer and Plain Dealing, good looking chestnut horses, from dams of Alban and Alcantra, 2:33, the latter one of the most famous sons of the immortal George Wilkes. Among the brood mares with foal to Abineer is a good looking bay hunter, owned by President Roosevelt, with whose family she is a prime favorite, and she will be bred back.

William Beasley, the Lynchburg lawyer, has a couple of large, handsome and well developed half-bred yearlings by the Socman, thoroughbred son of Sir Dixon. They were bred by himself and are out

of large, well formed mares. These youngsters took the first and second prizes in the class for colts suitable to become hunters at the Lynchburg fair last fall. Fond hopes are centered in the pair, and with age and development, they should make grand horses of the hunter type. Fondness for fine horses is an heritage of Mr. Beasley, as his father, the late Richard Beasley, of Petersburg, a Virginian to the manor born, bred them in ante-bellum days. Among those owned by the elder Beasley was the good stallion Ready Money, thoroughbred son of the noted Revenue.

Thomas S. Winston, of the big contracting firm of Winston & Co., Richmond, New York and Boston, has recently purchased of Dr. Lee Buckner, Roanoke, Va., the handsome combined saddle and harness stallion Fancy Hal, by Prince Hal, son of Spendthrift; dam Fancy Girl, by Fancy Boy. The latter was one of the best known and most successful saddle stallions ever owned in Southwest Virginia, and his impress on the stock in that section has proven of the lasting sort. From parties in Kentucky Mr. Winston has purchased the fine Spanish jack, King of Spain, and both animals have been sent to Hunter's Hill Farm, Apple Grove, P. O., Louisa Co., Va., and placed in the stud. Hunter's hill Farm is the old ancestral home of the Winstons and has been in the family for generations, the estate forming part of the tract originally granted by the Crown of England.

Floyd Brothers, of Bridgetown, Va., report a brisk demand for young trotting stock and a season of unusual activity in the number of mares being bred to their stallions. To their premier stallion, Sidney Prince, 120 mares have been booked and matrons of real class and rich breeding are being turned off, so great is the demand for the services of the son of Silney. And really this is as it should be, seeing that the bay stallion sires speed with uniformity, and that of the early sort, too, something that breeders seek in these progressive days. Rod Oliver, Moko, Jr., and Red Dillon, the stud champions of Silney Prince, are still young horses, but they have fine individuality and rich breeding, which entitles them to consideration, and breeders seem to recognize it.

Inquirers' Column.

Inquiries should be sent to the office of the Southern Planter, Richmond, Va., not later than the 15th of the month for replies to appear in the next month's issue.

COWPEAS AND SORGHUM.

I am thinking of sowing cow peas and sorghum together for hay. How many peas and sorghum would you advise per acre, and how much and what kind of fertilizer per acre? Must I sow broadcast or with a drill?

Howard Co., Md.

T. R. PEDDICORD.

See our article "Work for the Month" in this issue where the subject of forage crops is fully discussed.—Ed.

SHEEP KEEPING.

Does barbed wire make a good fence for sheep? If so, how many strands of wire does it take to make a good fence? If barbed wire does not make a good fence, what will make the best fence? How many sheep will one acre furnish pasture for during the summer—ordinary thin land?

Do you think raising sheep will be profitable in this locality?

Stokes Co., N. C.

S. W. PULLIAM.

We do not like barbed wire for a sheep fence, or, indeed, for any kind of stock. It is so apt to cause injury. Sheep injure the value of the fleece much where they have access to barbed wire fences, as they rub on them and tear out the wool. The best fence for a sheep pasture is a woven wire fence; that is, with cross wires at intervals, so as to prevent the sheep from stretching the parallel wires apart. Where only plain wire strands are used, the sheep force their way between the wires. On thin grass land you cannot expect to pasture more than 2 or 3 sheep per acre during the summer months, and they should at intervals have other feed than the pasture affords, if they are to do well.

We know of no reason why sheep keeping, with proper care, should not be made profitable in your section. There are men in your State doing well with sheep.—Ed.

WINTER PASTURE.

Would you advise sowing rye in corn at last working to make fall and winter pasture for calves and sheep, sow clover in rye next spring about time stock were all taken off, let crop then grow and make what it would, then hog down, hoping to have a rye and clover pasture the following winter.

Rockbridge Co., Va.

H. E. MOORE.

We would sow a mixture of rye, sapling clover, crimson clover and hairy vetch in the corn at last working. This will give winter and spring pasture and can be hogged down and will no doubt make a new growth in the fall and a winter pasture again.—Ed.

CANE SYRUP MAKING.

I am going to plant sugar cane this year. It has been sometime since I raised any. I would like you to give me advice as to how to cure and handle the cane so as to get more syrup out of it

St. Mary's Co., Md.

S. W. VAN PELT.

We presume that you mean Sorghum cane for syrup making and not the true Sugar cane. The best variety of sor-

ghum to grow for syrup is Early Amber for the early crop, and Late Orange for the late crop. It should be planted like corn in rows wide enough apart to admit of cultivation, say 3 feet, and the plants should stand 6 or 8 inches apart in the rows. Two or three pounds of seed will plant an acre. Cultivate frequently and keep level. The great secret in making a good yield of good syrup is having a crop uniformly grown so that it all ripens together and keeping the crop free from weeds and other plants which add impurities to the syrup when crushed with the cane. When the seed is fairly ripe then cut the canes and allow to wilt for 24 hours. Then cut off the seed heads and strip the forage and proceed to grind the canes. For further information as to details of the work of making the syrup send to the Department of Agriculture, Washington, D. C., for Farmers' Bulletin No. 135.—Ed.

TOBACCO PLANTING.

Will you please advise me in the following matter: I have a lot containing 4 or 5 acres, well set in German clover with a prospect of a heavy crop. I wish to turn this clover under when it heads out and set the land in tobacco. Will it be practicable to do so? I have never seen it tried but have heard that it is practiced in some localities. I fear that I will not be able to get a stand. Please advise me fully what is the best course to pursue to get a heavy crop of tobacco—how to cultivate, which fertilizers to use, etc.

King William Co., Va.

RICHARD TOMPKINS.

A Crimson (German) clover fallow is often used as a preparation for a tobacco crop and it is an exceedingly good one provided that it is turned down soon enough and that the mass of vegetation turned under is not too great. If the crop is a very heavy one, we would advise that it be cut for hay before it comes into bloom, leaving a heavy stubble on the land to be turned under at once. The danger in turning too heavy a crop under is that it makes the land too puffy and light for the best doing of the tobacco crop and the hot weather coming on so soon after the crop is turned under and before it has had time to decay may cause excessive sourness in the land. In our article on "Work for the Month" in the April issue we discussed the question of the best fertilizer to use for tobacco. Read this article. As you are turning under a crop rich in nitrogen you can reduce the quantity of nitrogenous fertilizer advised to be used very largely, but keep up the quantity of potash and phosphoric acid. In this issue you will find in the article "Work for the Month" further advice on the tobacco crop.—Ed.

COWPEAS.

I write you for information in regard to sowing cowpeas, I see they are highly recommended for improving land. Would like to know the best kind for me to use, also how many must I sow per acre. Please say where I can get the peas.

L. H. PORTER.

Grayson Co., Va.

In the article "Work for the Month" in this issue you will find advice as to sowing cow peas. You can get the seed from any of the seedmen advertising in The Planter.—Ed.

(Continued on Advertising Pages.)

Miscellaneous.

OPPORTUNITIES FOR A LARGER LIFE IN AGRICULTURE.

(Continued from April Issue.)

If we all understood the close relationship between agriculture and cosmic evolution, our appreciation of its value to the human race would increase at a surprising ratio. Have you ever thought that there was a time in the formation of the earth when no living thing existed upon it? There was a stage in the process of world building when the entire surface was rocky and forbidding, but through the action of natural agencies, this condition was modified by the gradual formation of an earthy covering. With the gradual deepening of the earth's surface through the continuous action of natural physical forces, organic evolution began, a process that has gone steadily forward until to-day the world produces a variety of plant and animal life truly confounding to the feeble brain of man, and out of this variety and luxuriance of plant and animal life has come, the rise and spread of the human race and the distribution of power amongst the several nations of the earth.

Have you ever thought what the United States would be without Indian corn and cotton? Have you ever thought what an utter failure of the corn crop would mean to the American nation? No business calamity could befall us, that would have such a far-reaching, disastrous and destructive effect as the failure of the Indian corn crop, and without cotton, three-fourths of the people of the world that now use clothing, would go naked. Yet the cultivation of Indian corn and cotton on such a stupendous scale in the United States alone, as to out-distance all the balance of the world goes forward day by day and is not even considered a matter worthy of special notice by a majority of our citizens. Yet in these two crops alone is concealed the germ of American prosperity and industrial activity at home and abroad. Thus the mainspring of American prosperity as affecting all classes and conditions of the population is dependent on the cultivation of the fields and farms of the United States, and as an example of dazzling national achievement, the American nation surpasses any nation in the history of the world, and yet the national progress and nation's future is founded upon the wealth drawn from the soil by the sweat of the brow and the labor of the hands of the American farmer. Thus, agriculture means everything to us and offers everything to us, and in order that some of these great truths may be more fully appreciated by you, I have deemed it well to present some figures to back up these statements which might otherwise be considered improbable unless supported by substantial facts.

In 1850 the value of the farms in the United States was \$3,271,575,425; by the year 1900 these figures had increased more than five times, reaching the magnificent total of \$16,674,620,247. In 1850 the value of agricultural implements was \$36,747,775; in 1900 it was \$364,062,060. Is it strange with these figures in mind, that the manufacturers of implements in the United States should have done a prosperous and extensive business in the last 50 years?

In no country in the world has live stock rearing been brought to such perfection as in the United States. In 1900 the value of live stock on farms and ranches amounted to \$3,478,050,000. This industry in turn with its thousand ramifying branches has had a remarkable influence on our national development, for the American people are essentially a nation of beef eaters, which has had much to do with the development of our well known characteristics of enterprise and push; for a nation of well-fed and well-clothed people will of necessity be more independent, more aggressive and more enterprising than those fed on the husks which fall from the rich man's table.

Out of the wealth of our live stock enterprises have been developed one of the greatest industries known to the world, that of slaughtering and packing animals and animal products. The stock yards in Chicago are the greatest in the world. More than 3½ million head of cattle, 7 million head of hogs and 4½ million head of sheep are annually received and for the most part slaughtered there. In the course of 100 years, Chicago has grown from a little Indian village to a mighty city of two millions of people; the most marvellous city that has been developed in modern times. The total value of the wholesale trade of Chicago in 1904 was \$1,781,000,000; manufacturing amounted to \$1,314,000,000. But what constitutes the chief part of these transactions? Under the head of the wholesale trade the largest single item is live stock transactions, aggregating more than \$300,000,000. Next comes poultry products, butter and eggs with \$261,000,000, while dry goods only totaled up \$196,000,000. The largest single item under the head of manufacturing is slaughtering, packing and animal by-products with a grand total of \$390,000,000; iron and steel comes second with \$80,000,000; and agricultural implements third with \$58,000,000. Thus, \$1,000,000,000 of Chicago's vast enterprises are dependent entirely on the live stock interests of the country. What a paralyzing effect the wiping out of these industries would have on American life and American industries, for a large amount of the tonnage of the railroads is de-

pendent on the hauling, first of the live animals, then of the slaughtered carcasses from one section of the country to another as the laws of supply and demand necessitate.

A comparison of the vested interests of the United States in agriculture and in manufacturing will no doubt reveal some facts equally surprising. In 1899 there were 10,381,765 persons engaged directly in agriculture, and 7,085,992 in manufacturing. The coal production in that year amounted to 230,254,076 metric tons, worth a total value of \$256,077,434. This enterprise, vast as it is, did not amount to as much as the live stock transactions in the city of Chicago alone. There were 512,339 manufacturing establishments in 1899 in the United States, with a total capitalization of \$9,835,086,900, and what per cent. of this was watered will probably never be accurately known. The total value of the products, including the cost of materials, amounted to \$13,062,883,769. Taking off the value of the crude materials, the net value of manufactures amounted to \$5,981,454,234, whereas, the total value of the farm crops and live stock was \$4,739,118,792. Thus, it appears that manufactured products in the United States, made largely as they were from the raw materials raised on the American farm, only exceeded the total value of farm crops and live stock by a little over one billion dollars. The value of farms and farm products, however, is based on a low estimate of their actual value, whereas, the products of manufacture show an enormous profit, and the total capitalization has not the same substantial foundation as that of farm lands, farm buildings and agricultural investments, generally speaking. However, these facts show all the more clearly the far reaching influence of our agricultural industries and their direct relationship to the development of our manufacturing enterprises, and that there is a mutually interdependent relationship existing between them. In other words, the pulse of American prosperity is not determined by steel production and manufacturing, but by the corn and cotton crops which indirectly feed and clothe our people. Unless the farmer is prosperous all other industrial enterprises are bound to languish, for a bumper crop of corn means money in the farmer's pocket for the purchase of additional luxuries, which stimulates a thousand lines of manufacturing; a bumper crop of corn means more fat beefes for the market, larger revenues for the railroad, greater demand for cars and engines, and the consequent renewal of the highways of commerce. With these various industries feeling the stimulating effect of the corn crop, prosperity becomes more general all over the country so that the whole tend and effort of the American nation should be turned more directly to the development of the American farm and the American farmer, for

from the agricultural sections of the country radiates the general prosperity of the people.

These facts have been brought out with another idea in mind. The average young man believes that success in life can only come to him through entering industrial fields; that agriculture is a circumscribed profession hedged about with difficulties which he cannot overcome, and offering but limited opportunities for the development of his natural gifts. These show that such an idea is utterly baseless and that no one need hesitate to follow agriculture as a profession under the misleading notion that it is without a future.

Some examples bearing out these ideas will not be inappropriate. The corn crop of the United States in 1899 was grown on 94,916,911 acres. The yield was 2,266,440,217 bushels, and the total value was \$828,258,326. What a vast amount of human energy is represented in the growth and harvesting of this crop. Yet, as we have seen, it measures the pulse of American prosperity. Have we reached the limit of corn production? Are we growing the most desirable grades of corn? Is there a chance to increase the yield without much additional expenditure of labor and fertilizers? All of these things are of vital interest to, not only the farmer, but the whole American nation. It has been clearly shown that the yield of corn may be increased from five to ten bushels per acre by better cultivation and better selection. There is no limit to the improvements that may be effected through judicious breeding. What a chance there is for you to do missionary work; what chance to add to the wealth and prosperity of the country. Hundreds of young men might go into the breeding and development of corn on a scientific basis, make money for themselves, and become public benefactors as well.

What has been said of corn is likewise true of wheat, as 52,588,574 acres were sown in that cereal in 1899. The yield was 658,534,252 bushels, valued at \$369,945,320. We are at the very threshold of the scientific growing of wheat. Better varieties are needed; improved methods of cultivation should be adopted. Will you be one of the leaders in revolutionizing the wheat growing industry? Unless some action is taken, and taken very shortly, the time is not far distant when this country will no longer be able to raise wheat enough for the needs of her own population. The average yield of wheat is only from 12 to 14 bushels per acre, whereas, there is no reason why it should not be increased to 20 bushels. In England the average yield is 30 bushels

to the acre over a series of years, and last year the average was 35 bushels to the acre. What has been said of corn and wheat would apply with equal force to many of the leading crops of the country, including barley, oats, rye, cotton and tobacco.

Cotton is the greatest money-making crop raised in the United States, yet the yield per acre is notoriously low. Varieties are not well adapted to the locations and soils on which they are grown. The staple is often weak and insufficient in amount. The number of bolls borne per plant is not as large as it should be, and there is an urgent need for the development of the varieties that will mature very early so as to escape the attacks of the boll weevil. There is a great scientific and practical field here in its virgin state, calling urgently for the careful attention of capable investigators. Hundreds of men can find lucrative employment in the cultivation, selection and improvement of cotton, and their efforts will do much to alleviate the present unsatisfactory condition of the cotton grower, by enabling him to overcome the attacks of predaceous insects and to increase the yields now obtained from his land. Golden opportunities lie scattered all about in the great field of agricultural industries, awaiting but the touch of the master mind to be turned into riches of untold value, not only to him personally, but to the farmers of the whole country as well. Could one ask for any greater privilege in life than the development of a stable business along honorable industrial lines that will enable the improvement and amelioration of conditions surrounding an industry which occupies the attention of millions of people. It does not seem that one could wish for a better opening, than to become a leader in some of these varied enterprises that have such a far-reaching influence on the future welfare of the nation.

But this is only one phase of the magnificent opportunities opened to the enterprising young man by agriculture; for the improvement of our live stock is as essential and will bring as rich rewards as any that may be garnered in the fields of crop production. In 1899 there were 215,822,238 domestic animals owned on the farms and ranges of the United States, and of this number 17,139,673 were classed as dairy cows. It is a recognized fact that the average butter yield of these cows does not exceed 150 pounds a year, and probably if more accurate data were available, it would be found even less. A dairy cow, to be made at all profitable, must give about two hundred pounds of butter a year, as it costs from \$30 to \$40 to feed and keep her. Even

then she cannot make more than \$10 to \$20 profit for her owner. For the same amount of feed and labor a cow that will give 5,000 pounds of milk can be kept, and she should make at least 250 pounds of butter in the course of a year. She would thus make a profit of from \$10 to \$15 more than the 200 pound cow, which would represent a gain in earning capacity on the total number of cows kept in the United States of more than \$170,000,000 a year. It is not uncommon to find cows that will give 5,000 pounds of milk per annum, and it is a comparatively easy matter to breed up and develop such cows in the course of a few years. Cows of this character are always in good demand. Here, then, is a limitless field for the enterprising young man, and what has been said of the dairy industry is practically true of beef cattle as well. Many a steer reaches the age of three or four years and sells at from three to three and a half cents per pound live weight, whereas, a good, export steer, properly fed and handled and well bred to begin with, will often bring \$80 in cash, or twice as much as the scrub. If you were to go out to buy a good horse, you might have to travel several days and then pay a round figure if you found the animal you desired to purchase. There are thousands of virtually worthless horses and mules in the United States to-day. The principles of horse breeding and the results that follow intelligent and careful selection and mating are not understood. Will you be a missionary in this field?

Could one ask for more opportunities than the live stock industries of the United States present to-day? You may become a leader, a great feeder, a great breeder, a great commercial promoter, an intelligent missionary to the people, an inspiration and a tower of strength to thousands who are laboring under discouraging conditions. Can any vocation offer a greater variety of desirable opportunities calling for the exercise of all the intelligence you can summon to your aid?

That the conditions outlined are not confined to any section is fully evidenced by the following statistics with reference to Southern agriculture; in other words, the young man of the South can find chances at home for the employment of their talents in the amelioration of agricultural conditions. The South is essentially an agricultural section, and is destined to continue so by reason of local environment and the special crops which find a favorable habitat within her borders. The corn crop of the South in 1904 was 661,746,000 bushels, valued at \$370,136,000. The yield per acre was low; entirely

too low, the average not exceeding 15 bushels per acre, whereas, the average for the United States is about $25\frac{1}{2}$ bushels, and for some of the corn growing States from 32 to 40 bushels. Is this difference due to the inferior nature of Southern soils, to improper cultivation and fertilization of the land, or to a failure to select and adapt varieties to local conditions? All of these factors have their influence, and all of them may be changed to the material advancement of the Southern farmer. This condition can be brought about through a better general knowledge of the principles of plant breeding and improvement, through selection and hybridization, by better methods of soil cultivation achieved by educating our farmers with regard to the true nature of the soil, and the parts the various constituents of plant food play in the development of crops. Fertilizers are more often abused than used to advantage, though Southern farmers pay out by far the greater part of the \$54,000,000 annually spent for this purpose in the United States. In spite of this tremendous drain on their resources, there is an abundance of plant food in Southern soils if properly handled, to insure maximum crops for many years to come. The greatest difficulty arises from the fact that our people do not appreciate the great fundamental truths on which agricultural progress and crop growing rest. To increase the yield of corn ten bushels in the South would be to add millions to the revenue of the Southern farmers, and bring happiness and contentment into many a Southern home where it is now a difficult problem to make both ends meet. What a desirable consummation this would be, and could there be a more inviting field for the employment of trained and skillful agriculturalists? The chief need at the present time to bring about some of the changes which are most desirable is the return to the farm of a large number of the boys who take courses in agricultural colleges that they may become leaders indeed and in truth to the people of their respective communities, blazing out, as it were, a trail that shall lead to newer and better things, and place within the reach of hundreds of farmers whose opportunities have been limited in the past, that inspiring information about their profession which will change their condition from that of stolid indifference to one of optimism and unbounded faith in the future.

The total value of the agricultural crops of the South in 1905 was not far from \$1,092,000,000. While this is an immense amount of money, more skillful cultivation of the land, the use of better brands of fertilizers and of specially bred strains of seed, with the same amount of labor now employed,

could be made to yield crops worth one-third more than was received last year, and still leave the land in better condition than ever before. Think of increasing our aricultural revenues \$300,000,000. It means better public schools and churches, better colleges and academies, more comforts in the home, and a more cheerful outlook on life; in fact, improvements in every material direction. And how shall this change, so desirable and so worthy of a supreme effort on our part, be achieved? Chiefly through the efforts of self-sacrificing men who are willing to become teachers of the new gospel of scientific agriculture; men who will carry it out into the byways, even unto the ends of the earth; men who will bear the opprobrium heaped on public benefactors because their mission cannot be appreciated by the people whom they strive to serve. But the consummation is so grand and the results so far reaching in their influence that sacrifice should count as nothing in a service offering such magnificent possibilities.

The opportunities offered in agricultural pursuits are unlimited; the greatness of the subject is too profound to be easily conceived. When conducted on strictly business principles and on a large scale it becomes as profitable in proportion as many of our leading and more favorably known industries. Men who follow farming on the bonanza scale, whether it be cattle ranging, wheat growing or cotton growing, make great fortunes. There are men in this country who own and operate more than 12,000 square miles of land, containing 640 acres to the square mile. Think of a business so vast, the territory embraced being greater than many of our smaller eastern states, and larger than many of the principalities of Europe. Not all the millionaires in the United States made their money in stocks and bonds on Wall street. Thousands of them are money kings because of the intellectual manner in which they have handled corn, wheat, cotton, tobacco and live stock.

Have you ever thought that national agricultural supremacy may be obtained in any line. Look at the marvellous results accomplished by the live stock breeders of Great Britain. The systematic improvement of live stock was only begun in those islands a little over a hundred years ago. Though they are smaller in area than some of our great States, yet they have developed a great number of breeds of cattle, horses, sheep and swine, and bred the highest types of flesh and blood known in the animal kingdom. Animals are shipped to all parts of the world at long prices, to the material benefit

of the British farmer's pocketbook. Thus a world-wide supremacy in animal breeding has been achieved by the farmers in these small islands, which has now become a great source of wealth to them. The little kingdom of Denmark has won a world-wide reputation for the production of a superior grade of butter; Canada for cheese; the United States for meat; and Australia for wool. The products of these several countries, because they are known to be the best, command a higher price in the markets of the world. There is no reason why the United States should not be the leader in every phase of agricultural production, and if this were accomplished the wealth of our farmers would be greatly increased, and the supremacy of our country more firmly established. The results accomplished in the various countries referred to, have been brought about, not in any haphazard fashion, but by careful pains-taking, deliberate and persistent work along certain definite lines, and the same results under like conditions can be accomplished in the United States. Surely the prize is of sufficient importance to merit substantial increase in appropriations to our agricultural colleges and experiment stations, that they may go forward and redouble their efforts to solve the many vexing problems of the farmers, and to so educate their sons that they shall become the leaders through which these very desirable ends shall be obtained.

It is hardly necessary to say, in view of all that has been presented, that there are many inviting openings for young men in the vast and varied fields of agriculture. They may engage in the plain business of farming with every chance of success, a statement fully substantiated in our own State by Mr. T. O. Sandy, of Burkeville, who commenced a few years ago on what was practically abandoned land in the tobacco belt of Virginia, and is now raising magnificent crops and breeding pure bred Holstein cows with success, and at a profit to himself of over \$100 per head per annum. The Hon. Henry Stuart, of the Stuart Land and Cattle Co., assured me that he was making 10 per cent. on his vast holdings of land in Russell County. Not many other investments in the State of Virginia will pay a handsomer revenue. Mr. Morgan, the manager of the famous duck farm at Riverton, started out with practically nothing, and is now conducting a business worth more than \$30,000 a year. Mr. Foster, the alfalfa king of Louisiana, is clearing something like \$15,000 a year on his alfalfa lands. Mr. Clark, the celebrated grass grower of Connecticut, raises tons upon tons of hay

on land that was abandoned a few years ago. And so the cases might be multiplied without end, showing what may be accomplished through a careful study of the business side of farming.

Should the young man not desire to turn his attention to the soil, an inviting field awaits him as an investigator. Think of what Burbank has accomplished and the reward his efforts have received. Not only has he established an international reputation as a scientist, but the benefits of his skillful efforts are known and appreciated in thousands of farm houses throughout the length and breadth of the United States. Some of the more important achievements for the promotion of agriculture are the frost resistant oranges, some especially choice varieties of plums and potatoes, a hybrid of the strawberry and raspberry, the plum-cot, being a cross between the plum and apricot, a white blackberry, and a cross between the English and Japanese walnuts, producing a very superior nut. Recently he has developed a thornless cactus, so that the arid and semi-arid regions of the United States may be made profitable as cattle ranches; and last, but not least, he has developed an everlasting flower, so that the ladies may have the real article on their hats in the future.

What Burbank has accomplished may be repeated, in greater or less measure, by any young man who sets himself resolutely to the achievement of great ends by first training his hand and his brain to work in unison. What more could one desire than to become a great leader in animal breeding, like Bakewell; in the field of plant breeding, like Burbank; in the field of agricultural chemistry, like Liebig and Laws and Gilbert, or in the field of bacteriology, like Pasteur? The future is indeed alluring to the man who sets his face resolutely to the wall and fits himself for a definite purpose in life and pursues it with unerring certainty. He will surely reap his reward of tenacity of purpose and persistency form a complement to his other qualifications.

In conclusion, the future of the young man who pursues agriculture with singleness of aim, no matter what direction his efforts may take, is sure of his reward. Is there not an opportunity, vast and varied, opened up to you through the multitudinous variety which agricultural pursuits afford? Is there not an opportunity for you, through agriculture, to become a great teacher, leader and public benefactor? What a glorious profession to lead, to benefit, to make smooth the rough places, to win undying fame at the hands of one's countrymen in the pursuit of the gentle arts of peace and the alleviation of the needs of mankind.

A. M. SOULE, Dean and Director.

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J. F. JACKSON,
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B. MORGAN SHEPHERD,
Business Manager.

B. W. RHOADS,
Western Representative
1714 Tribune Bldg., Chicago, Ill.

MANCHESTER OFFICE:

W. J. CARTER,
1102 Hull St.

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REMITTANCES should be made direct to this office, either by Registered Letter or Money Order, which will be at our risk. When made otherwise we cannot be responsible.

SUBSCRIBERS failing to receive their paper promptly and regularly, will confer a favor by reporting the fact at once.

WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. Criticisms of Articles, Suggestions How to Improve THE SOUTHERN PLANTER, Descriptions of New Grains, Roots, or Vegetables not generally known, Particulars of Experiments tried, or Improved Methods of Cultivation are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of post.

NO ANONYMOUS communications or enquiries will receive attention.

Address THE SOUTHERN PLANTER,
RICHMOND, VA.

ENTERED AT THE POST-OFFICE AT RICHMOND, VA., AS SECOND-CLASS MATTER.

PUBLISHER'S NOTES.

To Advertisers.

Be sure to send in your copy or instructions on or before the 25th of the month for the following month's issue. This is imperative.

A WANT AD. COLUMN.

Yielding to numerous requests, we have decided to establish a "want ad." column, where farmers can, at a small cost, offer for sale

WOOD'S SEEDS. Soja Beans-

Their Great Value, Both as
a Forage and Soil-Improving
Crop. 🌱 🌱 🌱 🌱

Usually, Soja Beans sell at a considerably higher price than Cow Peas. This year the conditions are reversed, and Soja Beans can be purchased at much lower price than Cow Peas. This should mean a very large increased use of Soja Beans. As a forage crop, they yield enormously. They stand up well, and can be cut and cured to excellent advantage. Their nutritive qualities are first class, as the forage contains much oil and fat-forming constituents. In soil-improving qualities, they are very good, but are possibly not equal to the cow pea in this respect; but they are fully equal when it comes to cleaning land from weeds and putting it in excellent condition for the crop to follow. They also make a most excellent crop to grow for a crop of beans, but we believe their greatest value is as a forage and soil-improving crop.

When sown as a forage crop, they should be sown thickly, at the rate of a bushel to a bushel and a half to the acre, broadcast; or, in drills, twelve inches apart. Sowing them thickly makes them grow a slenderer stalk, thus making a better quality of forage. Soja Beans stand drought remarkably well, and are increasing in popularity everywhere. Wherever they are grown, farmers are enthusiastic in their praise as one of the surest cropping and largest yielding of summer forage crops.

Remember, we are headquarters for COW PEAS, SOJA BEANS, SORGHUM, MILLET SEED, ENSILAGE, CORN, and all Southern seeds.

WOOD'S DESCRIPTIVE CATALOGUE gives fuller descriptions and information about cow peas and forage plants than any other seed catalogue published.

T. W. Wood & Sons, Seedsmen, Richmond, Va.

or exchange, any surplus articles they may wish to dispose of. A rate of 2 cents per word, cash with the order, will be the terms invariably insisted upon; 25 cents minimum charge; initials and figures count as one word. This column will always follow the single column ads. Send in your want ads.

TRIAL SUBSCRIPTION OFFER.

For 25c we will send the Southern Planter for the remainder of this year, as a trial subscription, to any person who is not a regular subscriber. We will appreciate it if our readers will bring this notice to the attention of their friends, as we be-



WARRINER chain hanging stanchions save cost in feed in one winter, says H. A. Moyer, Syracuse, N. Y. I think them perfect, writes J. B. Calvin, Kewanna, Ind., vice-president state dairy association. Send for booklet containing further information to WALLACE B. CRUMB, South St., Forestville, Ct.

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For the treatment of THE LIQUOR, OPIUM, MORPHINE and other Drug Addictions. The Tobacco Habit, Nerve Exhaustion.

OPIUM and Whiskey Habits cured at home without pain. Book of particulars sent FREE. B. M. Woolley, M.D., Atlanta, Ga., 103 N. Pryor St.

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Modern Silage Methods

That is the title of our new 216 page book. It tells everything anybody could possibly want to know about the silage subject. You can't think of a question that it does not fully answer. How to build, from foundation up, all kinds of silos. All about the crops and how to cut and fill. How to feed, with the most complete feeding tables ever published. About 10 illustrations help to make things plain. Used as a text book in many Agricultural Colleges. We have always sold the book for 10 cents, but for a limited time, to any reader who will ask for it, and name this paper, we will send a copy free. Write at once.

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The Philadelphia, the Best on Earth

Has the Longest Test and most in use. Continuous Opening from Top to Bottom. The Only Opening Roof made.

TANKS and TOWERS,
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Economy Silo

Air-tight and keeps ensilage in perfect condition at doorways as well as in every other part. Continuous self-adjusting doors that even a boy can open without aid of hammer or wrench—no complicated fastenings.

Well hooped and hoops form a convenient, permanent ladder.

Easy to put up, easy to get ensilage in and out. Fully guaranteed.

Write for illustrated catalogue G, with experience of users.

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lieve it will be a favor to them as well as to us.

BACK NUMBERS WANTED.

We are short the January and May issues, 1905, not only for our own files, but for completing volumes for several of our subscribers. We will take pleasure in advancing anyone's subscription two months each for these numbers if they will kindly forward them to us. Simply write your name and address on the wrapper, and we will promptly give you credit. Perhaps some may not wish to part with both numbers. If you can spare either one, send it along.

THE LAND QUESTION IN VIRGINIA SOLVED BY THE TORRENS SYSTEM OF LAND REGISTRATION.

Eugene C. Massie, Richmond, Va.

CHAPTER I.

The Record System and the Registry System.

It is admitted by thoughtful students and evident to all who have had any dealings in real estate that reform in our land laws is badly needed. The only questions are: How shall it be made and to what extent shall it go? Can satisfactory results be obtained by amending the existing law? Or, must a new system be adopted? No answer to these inquiries can be given without a consideration of the difference between what may be termed the "record system" and that which is properly termed "registry system." Virginia enjoys the honor of having inaugurated her record system nearly forty years before the enactment of the great "Statute of Frauds" in the reign of Charles II of England.

The Record System.

The record system requires evidences of title to be recorded where the land lies, and makes such record notice to the third parties. It deals only with evidences of title, and record is constructive notice. But many incidents that affect title are not required to be recorded. Thus, there is no record of the heirs of decedents, and none of the adverse possession. Title may also arise by decree of Court unrecorded in the deed books; by unrecorded marriage; and by unrecorded will or deed subsequently recorded within the periods allowed by law for the recordation thereof. There are also those mysterious creatures known as Equitable titles, whose birth and

THE BEST WAGON For Every Variety of Use is the "BROWN" WAGON

AND THESE ARE THE REASONS WHY



The "BROWN" principle increases its strength, durability and neat appearance. We use Double Sliders for the coupling pole. The Tongue Chains have Coil Springs in them, making them easy on the horse's neck. Seat Hooks locate themselves—can't get out of place, can't slip. Hot Oil-boiled Wheels—tires can't come off.

Machine Fitted Wheels—must be true. Machine Fitted Shafts—better than can be done by hand.

Have Extension Shoe Skeln which fully protects axle—used only on THE "BROWN" WAGONS.

Branch Chains to tongue chains—can't whip horse's legs.

Besides all this it is stamped "BROWN," which is a guarantee of excellence and superiority.

All about styles and sizes in free circulars.

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"Anderton" Vehicles



are the only vehicles sold on a

Real Free Trial.

No money in advance; no money on deposit; no note to sign; no fuss of any kind.

We dare make this offer because we can trust "Anderton" Vehicles to sell themselves and because we can really save you from \$15.00 to \$35.00 on your vehicle.

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COUGH & DISTEMPER CURE

Cures Cough, Distemper, all Throat and Lung Trouble. Purifies the blood. Puta the animal in condition. 50c. Prussian Remedy Co. St. Paul, Minn.

(REGISTERED)



Sharples TUBULAR CREAM SEPARATORS

21 POUNDS MORE BUTTER PER WEEK

Barnesville, Ohio, June 30, 1905. We were milking ten cows May 19. That day we took a Tubular Separator for trial.

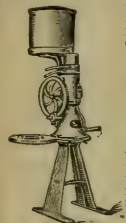
We used it one week and got 86 pounds of butter that week. The week before we used it, we got only 65 pounds. The week after the agent took it away we got only 64 pounds. We felt we ought to have it. Later we arranged to buy it. We recommend the Tubular to anyone interested in cows. It surely will pay any one to buy a Tubular.

(Signed) Lora and C. W. Acron. Write for catalog Y-290. It explains fully.

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The Dairy Problem Solved, and Solved Rightly.

Since man first began to milk cows, the problem of how to make the most dollars from them has been up for solving. After centuries of experiment the way has been discovered.



An Easy Running Empire Cream Separator

will get these dollars for the cow-owner, and will get them all. This is no experiment, it is an actual fact proven by years of experience by farmers the country over.

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Get it direct from
factory at factory
prices and save

20% to 50%.

The simple cream separator which doubles profits and cuts dairymen in two. Absolutely the simplest, easiest running, easiest cleaned separator in the world. Just belch in a man's three-piece bowl gets the last drop of cream. Investigate the best of dairies. Send your name and address to our post card and get our money saving catalogue No. 122 by return mail.

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Separator Co.,
56B N. Clinton St., Chicago, Ill.



WOOL BAGS.

Several thousand for sale cheap.

GEORGE T. KING, Richmond, Va.

existence may not be dependent upon recordation. It is therefore impossible to get full information from the public records, and they are to this extent in the nature of a snare. Without looking any further, it is apparent that two inherent defects lie at the root of the record system:

First.—It deals simply with evidences of title.

Second.—It does not require all evidences to be recorded.

The results are endless searches of all the records every time any transaction is desired, and lack of certainty after the search is made. The search involves the work of an expert who must assume grave responsibilities. He requires time for his labor and must be paid in proportion to the nature of the service rendered and the assurance given. The transfer of title to real estate is, therefore, slow, cumbersome, expensive and uncertain. Hence, such property is rendered undesirable for general investment, unavailable as a source of credit with banks, and wholly unsuited to the commercial demands of the twentieth century. This naturally restricts its market and inevitably depresses its value. Thus every individual owner is injured, business is frequently cramped where it might otherwise be extended, and the Commonwealth suffers in the comparatively small returns from taxes. The average assessment of lands in Virginia, as shown by the Auditor's report for 1904, exclusive of buildings, was \$4.81 per acre. The assessed values of lands and buildings, outside cities and towns was \$6.75 per acre. The assessed value of land and buildings including city and town lots and buildings, was \$8.16 per acre. The assessed value of lands and buildings, including city and town lots and buildings, was \$13.13 per acre. If by modern methods and improved laws, the values of our lands can be increased even one dollar per acre, this will mean an annual increase of \$91,664.14 in the revenue of the State.

The Registry System.

The distinction of the Torrens System is that it registers title, instead of mere evidences of title. Thus it deals with the thing itself, and every transfer is a transfer of actual title. Therefore, there is no need of looking backward, but every step is forward and taken with certainty, celerity and cheapness. No expert is required to ascertain or explain conditions under ordinary circumstances, and if there be any extraordinary circumstances, plain warnings is given on the face of the certificate of title. Everything is there put down in a clear and concise manner, and nothing can affect the title except what is so registered. Laymen and business men are thus enabled to deal with real estate with a freedom similar to that with which they now deal with registered certificates of stock and

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about good wheels and good wagons that will save you a lot of work and make you a lot of money—the

ELECTRIC STEEL WHEELS —and the— ELECTRIC HANDY WAGON.

By every test, they are the best. More than one and a quarter millions sold. Spokes united to the hub. Can't work loose. A set of our wheels will make your old wagon new. (Catalogue free.)

ELECTRIC WHEEL CO., Box 148, Quincy, Ills.



ELECTRIC



WE'LL PAY THE FREIGHT.

and send 4 Buggy Wheels, Steel Tire on " " \$7.75.
With Rubber Tire, \$15.50. 1 mile wheel \$2.40.
Tread. Top Buggies, \$28.75 (Harp) \$4.25. Write for
catalog. Learn how to buy direct. Repair Wheel, \$3.75.
Wagon Casterella FREE W. V. B. 100011, Cincinnati, O.



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STUMP PULLERS
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FREE
W. SMITH GRUBBER CO.
LA CROSSE, WIS. U.S.A.

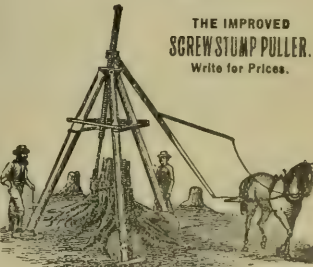
HERCULES Stump Puller



Clears an acre of heavy timber land each day. Clears all stumps in a circle of 164 feet without moving or changing machine. Strongest, most rapid working and best made.

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THE IMPROVED SCREW STUMP PULLER. Write for Prices.

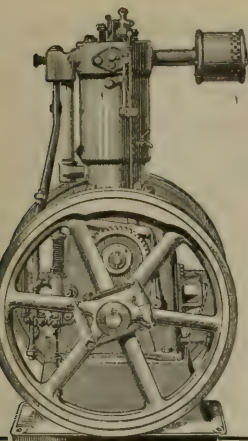


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Our Combined HARROW & ROLLER



is guaranteed to give 50 per cent. better results in one-half the time. Field look like a garden. No foot prints; can see check marker easier. Saves 1 team; a boy can do the work. Sent on 30 days trial, and freight allowed. Let us tell you more. Ask for reports, description, price and terms. Mfg. by IMBODEN HARROW & ROLLER CO., Olean, Pa. (Agents wanted.)



Gasoline Engine Superiority

When a man invests in a farm power, he owes it to himself to get the best that can be bought for the money.

The modern business farm can no longer be successfully operated without a power of some kind.

The best, most economical, and safest farm power is a gasoline engine.

The best engine is the

I. H. C. Gasoline Engine.

Why? Well, because it's so simple, easily kept in order and operated definitely.

It develops the full rated horse power and sustains it against the heaviest load.

It is safer, cheaper and more efficient than steam power.

It is adaptable to any and every use requiring a power.

Among its many uses may be named:

Shelling, Husking and Shredding Corn; Grinding Feed; Cutting Dry Fodder and Ensilage; Pumping; Sawing Wood; Separating Cream, Etc.

I. H. C. engines are made in the following styles and sizes:

Vertical, 2, 3, 5 Horse Power.
Horizontal, Portable and Stationary, 4, 6, 8, 10, 12, 15 Horse Power.

If interested in powers in any way, go to the International Local Agent and have him show you the I. H. C. gasoline engine, and supply you with catalogues, or write for further information.

INTERNATIONAL HARVESTER COMPANY
OF AMERICA, CHICAGO, ILL., U. S. A.
(INCORPORATED)

WANTED

SECOND HAND BAGS

ANY KIND—ANY QUANTITY—ANY WHERE.
I Pay Freight. Write for Prices.
GEO. T. KING, Richmond, Va.

bonds. Thus capital is no longer buried when invested in real estate, and many a man who is now unable to buy a home because he cannot withdraw from his business the sum required for such a purchase will be enabled to provide a home for his wife and children; for registered real estate will become a well-recognized and desirable source of credit. Many a man will also be saved from bankruptcy and enabled to preserve a home for his family in times of financial stress by the credit derived from his real estate. Also, men of small means whose fortunes are practically all invested in their homes, will be able to secure small loans and short loans—so often necessary for the relief of present distress. Such a thing is now out of the question. How many loans are now made on real estate for three months, six months, nine months, or even a year? How many loans are now made on real estate for \$100.00, \$200.00, \$500.00? Such transactions are unheard of under our existing laws, on account of expense, delay and uncertainties. But they are frequent in countries where the Torrens System prevails. Is it fair to place the poor man in this condition? Is it not really depriving him of his property to the extent that he is deprived of its free use? It doesn't make so much difference to the rich man, because only a small or infinitesimal part of his fortune is invested in his home, luxurious though it be. But the man of smaller means, that humble individual who composes a vast majority of our citizens, has all his possessions tied up in his lowly home. Our present laws therefore bear with peculiar hardship upon the great majority of our people, and the good old Democratic doctrine of "the greatest good to the greatest number" should incline the legislature to favor the Torrens System.

CHAPTER II

How the Torrens System Affects Farmers.

The chief assets of people in the country consists of land. It ought to be a valuable asset and one that could be readily dealt with at the command of the owner. If you own a farm, it is yours and you ought to be able to do with it what you please. In the first place, you should be certain that you have a good title to your land; second, you should be able to show your title at any moment without being put to any expense in the matter; and third, you should be able to produce this evidence in such form as to convince the inquirer that your title is good, without his being put to any expense in the matter.

What the State Owes You.

The State requires you to pay taxes on your land every year at a valuation fixed by her officers paid for that purpose. If you fail to pay these taxes promptly, a penalty of 5 per

Cutaway Tools For Large Hay Crops.

CLARK'S REVERSIBLE

BUSH AND BOG PLOW

cuts a track 5 ft. wide, 1 ft. deep. Will plow a new cut forest. His double action Cutaway Harrow keeps land true, moves 1800 tons

of earth, cuts 30 acres per day.

DOUBLE ACTION 8-FOOT

CUTAWAY CORN HARROW

at Work



NO MORE USE FOR PLOW

His Key Disk Plow cuts a furrow 5 to 10 in. deep, 14 in. wide. All Clark's machines will kill witch grass, wild mustard, charlock, hardhack, sunflower, milk weed, this. Send for circulars to the

tile or any foul plant

CUTAWAY HARROW CO., HIGANUM CONN.

CONCRETE BUILDING BLOCK MACHINE.

Build your New House or Barn of SUCCESS HOLLOW CONCRETE BLOCKS. Cheaper than wood or brick; handsome and more durable. Made only on Success Block Machine. Also Cement Post machine. Catalog and price list free.

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FOR SALE

Ten and Twelve horse traction engines, \$300; 6 horse gasoline engine, \$150; 10 horse, \$175; 13 horse, \$275; 16 horse, \$275; 6 horse engine and boiler, \$100; 10 horse, \$150; 5 horse new boiler and engine \$135; two feed mills, \$25 each. New boilers, all sizes, made to order; second-hand boilers and engines, from 3 to 100 horse.

D. L. CASEY MACHINE CO., Springfield, O.



Farm Phones

Have a telephone service of your own. Can of thousands small compared to convenience and time and money saved.

AGENTS WANTED

Write for free book explaining cost and how to organize, build and operate telephone systems among your neighbors. Caddis Electric Co., 158 C. C. Building, Caddis, O.

FARM TELEPHONES

How to put them up—what they cost—why they save you money—all information and valuable book free. Write to J. Andrae & Sons, 954 W. Water St., Milwaukee, Wis.

TELEPHONE FACTS

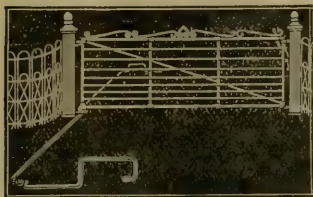
We publish a finely illustrated book that is full of telephone facts. It tells all about telephones for farms, the kind to use, how to organize a farm telephone company, how to build the lines and where to buy the best telephones. Free if you ask for Book 113-F.

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Many designs. Cheap as wood. 32 page Catalogue free. Special Prices to Cemetery and Churches. Address: COLLIER SPRING FENCE CO., Box Q, Winchester, Ind.



MANLOVE SELF-OPENING GATE

ALWAYS IN ORDER.

This gate can be placed at any driveway entrance, attached to ordinary posts and soon pays for itself in time saved.

It is opened or closed by any vehicle without assistance or stopping. By its use runaway accidents are avoided. Machinery is all above ground and so simple it never gets out of order.

It adds to the beauty, value, safety and convenience of any home. Address: MANLOVE GATE CO., 272 E. Huron Street, Chicago, Ill.

ORNAMENTAL FENCES

Iron or Wire, built to your order.



Enterprise Foundry & Fence Co., 402 S. Senate, Indianapolis, Ind.

SAVE POSTS!

Only from one-half to one-third the usual number are necessary with Page Fence—the strongest post saved known. Double-strength spring steel horizontals is the reason. This saving in posts is worth your while. Write today.

Page Woven Wire Fence Co., Box 5113, Adrian, Mich.

SUPERIOR STONED POSTS

No more rotten fence posts. Just the thing that meets the present demand. Cheap, strong, durable. Easily made at home or in a large way. Sand, gravel, cement and carbon looped posts as reinforcement. State or county rights for sale. Agents wanted. Excellent profits. Write.

B. F. STULTZ, Elkhart, Indiana.

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A beautiful design as cheap as wood. Large catalogue free. Special prices to churches and communities. Write today.

Ward Fence Co., R. Newton St., Portland, Ind.

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48-in. stock fence per rod only. Best high carbon coated steel. Spring wire. Catalogues free. Write today. FREE Buy five at wholesale. Write today. MASON FENCE CO. Box 86, Leesburg, O.

FENCE STRONGEST MADE

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B-B FENCE STAYS

Beats all Farm Fence at your price. Address B. B. FENCE CO., Box 90, Fort, Ind.

cent. is added and interest also runs on the debt. Furthermore, the State will levy on your personal property for satisfaction of her taxes; and if you continue delinquent, she will sell your land and deprive you of your title. We will consider hereafter the unjust and cruel provisions of our present tax laws and the oppressive results of tax sales. At present, it is enough to note the fact that the State undertakes to deprive you of all your title to lands that may be fairly worth thousands of dollars, and to confer this valuable property upon another in consideration of delinquent taxes of any amount whatsoever—it matters not how trifling the sum may be. Moreover, if the State herself, or any city, town or county wants your land; or, if any railroad company, telegraph company, telephone company, or any other company for internal improvement, wants your land; or even if any one, who wishes to establish a mill and build a dam, wants your land—the State can take it away from you and compel you to sell for such price as may be determined in summary proceedings for condemnation. And this she can do whether you want to sell or not. Now, what does all this mean? It means that the State regards herself as the ultimate owner of all the lands within her borders; and if you trace your title back to its original source, you will find that it is based upon a Patent or Grant from the Government. In other words, the State has always claimed to be the sovereign owner of her lands, but has undertaken to confer title thereto upon certain of her citizens subject to what she terms her right of eminent domain. This title conferred upon her citizens has never been a free gift, but has always been in return for what the State regarded as a fair and valuable consideration—usually in money, but sometimes in blood and services for her development and defence. In this way, our worthy citizens have been induced to devote their lives, their energies, and their substance to the upbuilding of the State. They have repaid in taxes many times over the value of the lands granted by the State, and they have made the State what she is.

What the State Should have Done. Therefore, they had the right to expect and demand that their titles should be safe-guarded and guaranteed by the State; that she should pass such laws as would enable them to enjoy their possessions in security; that she should pass such laws as would enable them to deal with their property freely; that she should pass such laws as would relieve them from all unnecessary expenses in transferring title; that she should pass such laws as would put an end to any unjust forfeiture of any man's land; and that she should pass such laws as would operate as a guaranty

MASTERS Rapid Plant Setter

SETS
Tomatoes
Cabbage
Tobacco
Sweet Potatoes, Etc.

Does better work than can be done by hand, and twice as fast.

TWO BARRELS of water per acre with this setter will produce

SURE WORK AND BEST RESULTS

Price, \$3.75 each. Express charges prepaid to your station. Write for particulars, testimonials, wholesale prices, etc.

MASTERS PLANTER CO., Chicago, Ill.

HURST'S POTATO SPRAYER
FREE TRIAL

Sprays Everything. Potatoes, Truck, etc., 4 rows at a time, 20 acres a day. Even 4-acre rows say, "Pay for itself in first season."—as it has many uses. (Also a first class Tree Sprayer.)

Has 111 PHENOL, and delivers a "Fog" like spray. Perfect action. All working parts made of "BRASS". Runs very easy, a BOX 10 years old can operate it with ease. (House-hitch for lilly country). PHENOL ORDER where no Agent, gets wholesale price, or will take extra yield one acre our pay. Sent 10 DAYS TRIAL—does not cost you one cent if not satisfied. QUANTITIES for 2 yrs. We give one away, in each locality for a little helpful Advertising. Write today for our liberal terms.

H. L. HURST MFG. CO., 1517 North St., Canton, O.

Agents wanted. Write today for our liberal terms.

Defender Sprayer

All brass, easy working, most powerful, automatic mixer, expansion valves, double strainer. Catalogue of Pumps and Treatise on Spraying free. AGENTS WANTED.

J. F. Gaylord, Box 52, Catfish, N. E.

Agents wanted. Write today for our liberal terms.

SAN JOSE SCALE
and other INSECTS killed by
GOOD'S
Caustic Potash Whale-Oil Soap No. 3

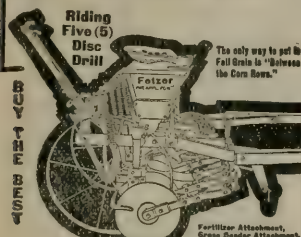
Endorsed by U. S. Dept. of Agri. and State Experiment Stations. This soap is a Vermicide as well as an insecticide. 50-lb. kegs, \$2.50; 100-lb. kegs, \$4.50; half barrel, \$7.00; 80-lb. per lb. barrel, 425 lb., 80c. Send for booklet, JAMES GOOD, Original Maker.

693-41 N. Front Street, Philadelphia, Pa.

Agents wanted. Write today for our liberal terms.

A neat Binder for your back numbers can be had for 25 cents. Address our Business Office.

The Machine That Raised the Price of the Farm.



"Between the Corn Rows," the horse guides the machine with the shafts. Over 4,000 sold in 1905.

REMEMBER. This is not a walking affair with weight boxes, but a

Modern Five (5) Disc Drill

It is strong, durable, efficient and light draft. Write at once for free circular F. D.

FETZER & COMPANY,

Established 1878 Box 16, Middletown, Ohio.

SPAYING Pronto Process

Safe, Humane, Effective, Economical.

Spay Your Cows, Sows, Ewes, Etc.

Easily applied. Requires no cutting—causes no pain. Avoids all death losses. Improves their butchering qualities. Spared animals grow larger and fatten easier. Racing Mares, Dogs, and all pet stock may be spayed without injury to them.

Trial box, enough for fifteen sows, \$1.50 postpaid. Book No. 10 on Stock Spaying, also expert advice by our Veterinary Surgeon SENT FREE. Our Veterinary Medicine Case will save many valuable animals for you. Saves doctor's bills. Investigate. It will pay you.

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CHICAGO

William's
TRADE MARK
NO TRIX TO PUMP
FREE
"To This"
"To Fix"

To introduce our patented pumps in every country, we will send one pump to the first to write accepting our special offer. Write today. A wooden pump made of iron. Just remove faucet and handle to remove bucket. Better. Made of steel, has adjustable, brass drain cock prevents freezing. Guaranteed. All repairs done quickly always ground.

William's Pump Co., 467 Harmon St., Indianapolis, Ind.

of all titles to lands that might be brought under the law for that purpose.

What the State has not Done.

It is clear that the State should have done these things. It is equally clear that she has not done one of them. Land titles have never been safe-guarded and guaranteed by the State. She has frequently granted the same land to different parties and accepted taxes from both. Did you ever hear of any such taxes being returned? Owners have never been enabled to enjoy their lands with anything like perfect security, because our laws have never afforded any means of establishing absolute title against all the world. The State has simply allowed owners to record evidences of their title, and has never permitted them to register the title itself. The cumbersome methods, the delay, the costs of transferring title to lands are notorious. Compare these difficulties with the ease, the quickness, the cheapness, by which the title to personal property of all sorts may be transferred, and you will realize how your freedom has been curtailed in the enjoyment of real estate. And when you come to the question of taxes, you will doubtless have no difficulty in recalling cases in which the lands of your neighbors or friends have been practically forfeited for a paltry sum of delinquent taxes of which they may have had no knowledge.

What the State Should Now Do.

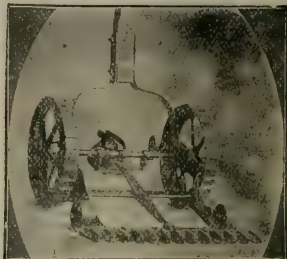
The State should now do something to correct these evils. Fortunately, she need not make any wild experiment. The subject has all been threshed out and the problem has already been solved by the great mass of English-speaking people. The Torrens System of Land Registration has been found to be an effective measure for the relief of the people. A bill on the subject is now pending in the General Assembly of Virginia, and should receive the hearty support of every member who values the interests of his constituents and the welfare and progress of the State.

What It Will Do for the Farmers.

The Torrens System will enable the farmer to utilize his property fully and freely. There are many occasions when people in the country need ready money for business purposes or family necessities. Sometimes, they wish to sell, but oftener they find it advisable to borrow. A certificate of title under the Torrens System will be a great advantage in either event. Sales will be easier, because the purchaser can tell from certificate exactly how the title stands and will know that he is not buying a law suit; because the whole transaction can be speedily and certainly closed; and because no examination of title will be necessary and the costs of the transfer will be small. Loans will be easier because the borrower can

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use his certificate as security and will not have to be running around to find some friend who will be kind enough to endorse for him; and because the banks will be glad to get certificates as collateral security. If the names of people in the country who have been ruined by endorsing or going security for friends could be collected in a modern Doomsday Book, the record would be appalling. The Torrens System will go far towards cutting up this evil by the roots. When you come to think about it, why shouldn't the man in the country be able to use his property as freely and get as much out of it as the man in the city does out of his property? The city man buys stocks and bonds, and they are a source of ready credit to him. The country man has the best and most solid form of property—something that has an intrinsic value and is, besides, productive of many values—that which is, indeed, the foundation of all values. This Torrens System will enable him to enjoy and use this property as he has the right to do. The removal of restrictions, costs, and discriminations will encourage dealings in lands, and capital will seek this form of investment more freely. The market value of lands will improve when all questions of title are removed, and when transactions can be had without risk, cheaply and speedily. The Torrens System will also prevent the forfeiture of any man's land for delinquent taxes. No sale can be made without full notice, under the pending bill. Final sale must be made on the premises after due advertisement, as foreclosure under deed of trust; and absolute title will be passed to the purchaser. The property will thus bring its full market value, and the proceeds will be equitably distributed so that the former owner will not be robbed, but will get whatever may be due him out of the proceeds.

Every farmer who values his property and personal rights, ought to write at once to his representatives in the House of Delegates and Senate urging the enactment of this great measure.

[to be continued.]

Davidson Co., N. C., Feb. 26, '06.

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P. NORTON.

Randolph Co., N. C., Mar. 18, '06.

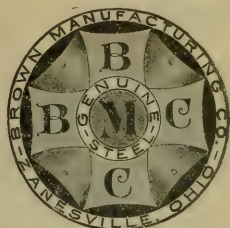
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Illustration of the Rife Hydraulic Ram pump.

SHEEPSKIN.

1. I lately had a ewe to die and want to use the skin for a foot warmer. What is the best method of bleaching the fleece?

2. How long should chicks be allowed to run with the hen before being weaned?

MEREDITH DRYDEN.

Talbot Co., Md.

1. Wash well in clean, soft water with a good soap, not too caustic, and thus get out all grease. Dry in the sun and then bleach by exposing to the fumes of burning sulphur in a close box or room.

2. The hen and chicks usually settle this between themselves. We have often taken the hen away from the chicks, in warm weather, when the chicks were three weeks old and they have done well.—Ed.

ALFALFA SEEDING.

I have two acres I want to seed to alfalfa and have plenty of stable manure to put on, but it is full of red top seed. Will the red top kill out the alfalfa?

J. P. McDOWELL.

Halifax Co., Va.

We would not advise the application of the stable manure for the alfalfa crop, unless it had been heated and composted sufficiently to kill the red top seed. A heavy seeding of red top, or any other vigorous growing grass, will smother out alfalfa when newly seeded, indeed, grasses, when they get into an alfalfa field, will sooner or later run out the alfalfa.—Ed.

PEAS AND CLOVER.

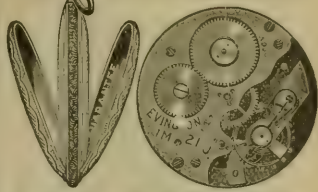
Have 5 acres rather thin, worn out land in wheat; wish to cut in June and seed in cowpeas, and in fall cut peas and sow in annual clover. Please advise what fertilizer to use on peas and clover, and whether a heavy application of proper fertilizer, when sowing peas, will also answer for the clover to follow the peas.

Halifax Co., Va. S. R. JORDAN.

Apply 400 pounds of acid phosphate per acre, after the wheat is harvested, and cut into the land with a Disc harrow or strong cultivator, and then sow or drill the peas. Cut these off in September and then sow crimson clover, 10 lbs. to the acre, and three-fourths of a bushel of wheat, oats and rye, mixed per acre. This will make a good cover crop and a fallow to turn under in the spring. The 400 lbs. of acid phosphate should grow both crops. A dressing of lime, 25 bushels to the acre, would help the clover crop and the land.—Ed.

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I have a very fine colt two years

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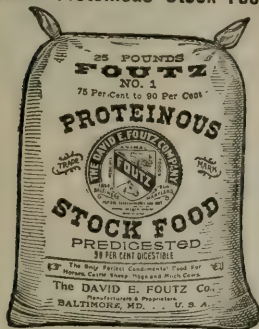
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old that carries his tail to one side. Can you suggest some way to make him hold it in the right position?

GRANVILLE CO., N. C.

This objectionable feature can be remedied by having the muscle which draws the tail on one side cut.—Ed.

EARTH NUTS.

Find enclosed some nuts which appeared here a few years ago. Last year, they spread very much. No crop grows with them. Kindly give me the name and best way of getting rid of them. They grow quite deep.

YORK CO.

A SUBSCRIBER.

Send the nuts with the leaf that grows on them and then we will identify same. There are so many plants with bulbous roots that without the leaf it is impossible certainly to identify.—Ed.

GRUBS IN SHEEP.

I notice in your valuable paper much said about grubs in sheep. I have had some sad experience along this line. I understand from the writers that the grub is found sometimes in the stomach of the sheep and sometime in the head. I have lost two fine sheep, one last fall and another this month. On examination, I found the grub in the windpipe. I would be glad of any further information.

MILTON MOUNTJOY.

Sheep are infested with several different parasitic worms. Those most common, and causing the greatest loss infest the intestines, stomach and bronchial tubes. It is these worms that our correspondent has been discussing in his recent articles on parasites. The grub that infests the head of the sheep is the larva of the gad fly. This, whilst causing annoyance to the sheep, rarely does serious injury or causes death. The grubs are nearly all expelled by the sheep sooner or later from the nostrils. In some few cases, they get to the brain of the sheep and then cause death, but this is comparatively rare. The worms to guard against and dread are those infesting the body of the sheep. Every sheep keeper should carefully study the articles which have appeared in this Journal on this subject and adopt the remedies therein suggested and advised. If they will do this, we can eventually get rid of these parasites from our flocks and pastures.—Ed.

IMPROVING POOR LAND

I would like to know what to do with a run down farm. Would land plaster or lime be the best fertilizer? The land is mostly red clay. I have been here only a year and haven't much stock.

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What the run down lands of the

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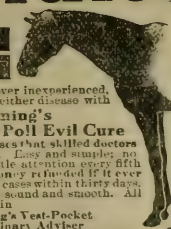
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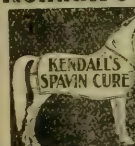
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South need to make them productive is lime to correct the acidity of the soil and improve the physical and mechanical condition of the soil, and then for this soil to be filled with vegetable matter derived largely from cowpeas, clovers and other leguminous crops and from barnyard manure. The leguminous crops will not grow luxuriantly until the soil is made sweet with lime and broken deeply and finely worked. They also need to have some phosphoric acid applied to the land to give them a start. This should be given in the form of acid phosphate, the cheapest fertilizer made. Apply 300 or 400 lbs. of acid phosphate per acre before sowing the peas. Lime should be applied in the fall or winter and the acid phosphate in the spring. The lime will make the potash in the soil available and you do not need to buy potash for ordinary staple crops. Irish potatoes and tobacco will need some potash to be applied. In your case, we would plow the land and then apply 300 lbs. of acid phosphate per acre, broadcast, and then work fine and and sow one bushel of cowpeas per acre. This crop we would plow down in September, and then apply 25 bushels of lime per acre, and sow 10 lbs. of crimson clover and 3 pecks of wheat, oats and rye, mixed, per acre. This will make a winter cover for the land and some pasture for your stock in the spring. In April, turn down the winter's growth, and you may then plant corn in May, and in July sow a mixture of cowpeas, crimson clover, sapling clover, wheat, oats and rye in the corn. This will cover the land in the winter and give you some grazing, and should be plowed down in April or May and followed by a cowpea crop to be cut for hay in August. Then sow either winter oats of wheat and let this crop be followed with cowpeas in July to be plowed down. The land should then be so much improved as to be capable of producing crops of any kind with proper preparation and the use of all the manure you can make from feeding the crops. Plaster is of no use on your land. It only gives results on land where potash is abundant and in an available form.—Ed.

SHEEP LOSING FLEECE.

I have a small flock of sheep; several of them are losing their wool, one is entirely naked. They seem to be healthy in every other respect. What is the cause of this, and is there a remedy?

Albemarle Co., Va. D. R. WRIGHT.

The sheep are infested with a skin parasite which causes the loss of the wool. They should be shorn and then be dipped in Laidlaw-McKil's or Cooper's Dip. Either of these Dips can be had in this city from the wholesale drug stores.—Ed.

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GUINEA PIGS.

Will you give me some information in regard to the raising of guinea pigs? What kind of houses do they require? Would a large, dry, light cellar suit them, and how should they be treated generally?

MISS M. R. CARTER.

Prince George Co., Md.

When a boy, we kept guinea pigs, but this is so long ago that we have almost forgotten how we handled them. So far as our recollection serves, we kept them in hutches like rabbits are kept in, with a small yard in front of each of them to exercise in. These hutches we had in a dry, clean shed. Such a cellar as you describe would do equally well. They require some hay for bedding, and should be kept very clean. We fed them about the same as rabbits, except that we gave them bread sopped in milk as well as bran mash and some green vegetables.—Ed.

NITRATE OF SODA FOR CUCUMBERS AND TOMATOES.

Can nitrate of soda be profitably used on cucumber and tomatoes? If so, how many pounds to the acre, and how to be applied, also at what time? Please answer the above in next month's issue. A SUBSCRIBER.

King & Queen Co., Va.

Nitrate of soda can be used with great advantage on both the cucumber and tomato crop. Its immediate availability is of great help in pushing forward the growth of the vines so as to get them early into fruiting and thus lengthen the crop season. It may be used in quantity up to 200 lbs. to the acre on either of these crops, but should not be mixed with the fertilizer put into the ground when planting the crop, but be applied as a top dressing around the plants, after they have commenced to grow. It should be given in two or three applications at intervals of a week or ten days, care being taken not to sprinkle any of it on the foliage, which it will burn, if the leaves are wet with rain or dew. On the tomato crop, it has been found to largely increase the yield and to hasten its maturity.—Ed.

GAPES.

Will you kindly publish in The Southern Planter a preventative and remedy for gapes in young chickens?

Mrs. R. B. WILLCOX.

Prince George Co., Va.

There is no certain remedy for gapes. We have tried almost everything that has been suggested, but have had no satisfactory results, and this we believe to be the experience of every poultry keeper. The proper course is to avoid the disease. This can be done by taking care that the chickens are kept off infected land and have pure clean water to drink.

Northern Virginia Farms

Of every class, adapted to Grain, Fruit, Dairy and Blue Grass, within five to thirty miles of Washington, D. C.

No. 80.—Contains 130 acres, 6 miles from R. R. Near McAdam, Pike, 75 acres cleared, 55 acres in timber, land is a little rolling, a good quality of red clay, a good young orchard, just beginning to bear. Farm watered by stream and well. Comfortable 4 room house, new granary, stable for 4 horses ¼ mile to school, 1 mile to stores, church, P. O., and shops, situated in a good neighborhood. Price \$1,400, on easy terms.

No. 41.—26 acres; 10 miles from Washington, D. C.; 2 miles from an electric and steam railroad. Thirteen room house in nice shaded lawn, 2 cellars, well at house. Nice orchard in full bearing. All necessary out-buildings in good repair. Price \$3,600.

No. 43.—30 acres; an elegant brown stone house, with 6 rooms, 2 porches. Three acres young orchard, in full bearing. All necessary out-buildings in good repair. A large stone mill building with 2 sets of corn burrs, has 23 foot water fall. Situated in a thickly settled and refined neighborhood. Mill is in thorough repair and doing a good local business. Price \$3,200.

No. 53.—515 acres, natural Blue Grass land; well fenced; elegant well blue ground 5 room house, with all the necessary small farm houses in good repair; good sheep barn 20x40. Thrifty young orchard of apples, peaches, pears and cherries. Land is all in corn grass, except about 40 acres that is in corn now. Close to schools, church, mill and post-office. Four miles from railroad. This farm usually sends off from forty to fifty export cattle in September. It is located in a beautiful section of the county of Loudoun, 25 miles from Washington, D. C. Price, \$15,000 per acre; one-third cash.

No. 66.—Large merchant mill, new process, all modern improved machinery, cost about \$14,000, situated on one of the finest grain sections of Northern Virginia, two and one-half miles from railroad. Ample water power in ordinary seasons, but fitted up with a splendid boiler and engine to aid power in the event of a drought. For sale to settle an estate. Write for full description. Price \$7,500, on very easy terms.

Write for full information and price list of other farms.

No. 71.—260 acres; a fine body of white oak timber. This land is just rolling enough to drain well; it is a fine quality of land and is 5 miles from the R. R. This timber is estimated to cut from two to three thousand ft. of lumber to the acre. The land alone is worth more than an asking for both, and a quick business man can buy this tract and make on the clear either the land or the timber. It will not be on the market long at the price I am asking. Price, \$15 per acre.

No. 75.—Contains 60 acres of good land, fronting on 34 dammed river. Fine, land a little rolling, but considered level, well fenced, about 10 acres in timber, 23 miles from Washington. Thrifty young orchard, apples, peach and pear, good 6 room house. Stable and other out houses all in good repair, ¼ mile from store, P. O., mill and shops, in elegant neighborhood. Price, \$1,250.

No. 106.—Contains 330 acres; 250 acres fenced, and very well fenced, this was at one time one of the finest farms in its section; it is naturally a fine quality of soil, but has been rented for several years, and has the face knocked off it; it is a chocolate Clay Soil, which is easily improved, and will show improvement after receiving it. 50 acres of rich bottom land on Bull Run river; the dwelling is a comfortable 6 room house, with all the other buildings in very good repair. This farm will be sold on very easy terms, and would soon pay for itself grazing cattle and sheep, 4 miles from railroad station, 1 mile from store and post-office. Price \$3,500.

W. E. MILLER, Herndon, Va.

Wherever chickens have been kept which were infected with the gapes there the embryos of the worms are only waiting to infect the next comers. They will continue to be sources of infection for an indefinite length of time. The way to get rid of them is to plough up the land and lime it heavily and let it thoroughly dry out. Dampness is essential to the life of the embryos. Chickens may be kept free from gapes if kept on a dry, clean, board floor until they are three or four weeks old. They then seem capable of resisting the disease if strong and healthy. Our remedy for the disease if it appears is to kill and burn or bury deeply the first chicken affected and thus prevent it coughing up the worms to be picked up by the others, and to at once remove the flock to other ground high and dry.—Ed.

COWPEAS AND GERMAN CLOVER.

Have any subscribers sowed cowpeas and German (crimson) clover in the corn field at the last working of the corn at the rate of 3/4ths of a bushel of cowpeas and 1 gallon of clover seed per acre and made a success of the two crops? The corn to be first cut off and then the cowpeas and the clover to stand until the spring following.

Mecklenburg Co. J. F. BERRY.

We have known this plan of seedling to be frequently followed. Sometimes, it is a success; sometimes, a failure. If the cowpeas make a very luxuriant growth, owing to a particularly favorable season and suitable land, they almost certainly shade the clover too much and smother it out. If they only make a moderate growth, the clover often stands and makes a good crop.—Ed.

HINTS BY MAY MANTON.

The waist that is tucked to give becoming fullness and that is trimmed with insertions of lace embroidery or with some other banding, which can be similarly applied, is one of the prettiest and most desirable that the season has to offer. It can be made with skirt to match out of muslin, silk or wool to serve as separate blouse and is altogether thoroughly serviceable and desirable. This one is exceptionally becoming, while at the same time, it is exceedingly simple, reducing the labor of making to the minimum. The trimming is all applied on indicated lines, so that there is no difficulty in securing the effect and the tucks are so arranged as to give the best possible effect to the figure. In the illustration, dotted Swiss is trimmed with German Valenciennes insertion and the cuffs are tucked on horizontal lines, but these details are optional, as the cuffs can be made plain or of an all-over material, if preferred.

IDEAL VIRGINIA HOMES.

SOME GOOD BARGAINS FOR AN IMMEDIATE PURCHASER, NEAR SSTEAM AND ELECTRIC R. R. AND NEAR WASHINGTON WHERE WE HAVE THE BEST OF MARKETS.

No. 10.—125 acres, 8 clear, 7 room house, some outbuildings, well watered, plenty of nice fruit, 3 miles from R. R. and about 19 miles from Washington. Price, \$2,500.00 on easy terms.

No. 21.—100 acres, 90 clear, 7 room old time house, some outbuildings, plenty of fruit, good spring nearby, 3 miles from R. R., near school, churches and stores. Price, \$1,800.00

No. 51.—100 acres adjoining the corporation of Fairfax: 1 1/2 miles from the electric R. R. Price, \$40 per acre. This will make a good farm.

No. 55.—14 acres, 70 clear, the balance in fine timber, 5 room house, good barn 20x40, fine spring, plenty of fruit, 3 miles from electric R. R., near school church and stores. Price, \$20 per acre; terms, 1-3 cash, the balance to suit.

No. 73.—147 acres, 25 clear, 1 mile from store, P. O. and school. Price, \$1,100.00. This will make a nice cheap home. It is located on two public roads.

No. 83.—280 acres in a high state of cultivation, new 8 room house, cement cellar, water at the door of each house, nice new barn and all necessary outbuildings, 500 fruit trees, 11 good springs, well fenced. This will make a nice stock farm, or will divide and make two farms. This is a nice piece of property, is in a nice farming locality, is about 21 miles from Washington. Price, \$8,500, on easy terms.

No. 135.—53 acres, 40 clear and in good state of cultivation, new 6 room house, a large store house and all necessary outbuildings. This is a nice, cheap piece of property, the store is doing fine business. Price, \$3,000.00 on real easy terms. I consider this a valuable piece of property and very reasonable.

No. 139.—280 acres in a high state of cultivation, has a nice colonial house, fine shade and plenty of good water. General Washington and General Braddock made their headquarters in this house when marching from Alexandria to Winchester in the year of 1755-1756. Price, \$3,000.00

No. 159.—735 acres: will make a fine stock farm. Fine brown stone mansion, beautiful shady lawn. Has two tenant houses and all necessary outbuildings. Price \$30 per acre. It will pay you to inspect this place.

No. 173.—Fine fruit farm: 734 acres, 6 room house and all necessary outbuildings, well at the door, 1,500 fruit trees in fine shape, place well fenced, 3 miles from electric R. R. 17 miles from Washington. Price, \$3,000.00. This is a cheap place, as the fruit will pay for it.

20x40, all necessary outbuildings, well at the door and stream through the place, well fenced, 13-1344 acres, 74 clear, 6 room house, good cellar and porch, new barn, well fenced, all varieties of fruit, 1 1/2 miles from R. R., near church, school and stores. Price, \$3,800 on easy terms.

No. 280.—145 acres, 7 room house, small barn and all necessary outbuildings, well at door, stream through the place, 10 acres in apple orchard, 2 miles from R. R., located on the pike, 2 miles from Washington, this will make a nice farm. Price, \$50 per acre on easy terms.

No. 284.—92 1/2 acres, 32 clear, the balance in fine timber, 8 room house, nice shade, large barn and carriage house, young peach orchard of 500 trees, a number of large apple trees, well at the door and water in every field. This will make nice home as it is in a fine farming section, 1 1/2 miles from the steam and electric R. R. Price, \$3,000 on easy terms.

No. 291.—96 acres, 75 clear, the balance in fine oak timber, 9 room house, barn 30x40 and all necessary outbuildings, well fenced and watered, 2 miles from R. R., near school church and store. Price \$2,000.

No. 295.—85 acres at Fairfax station, 8 room house with cellar, barn 40x70, all necessary outbuildings, near school, church and store, this will make a fine dairy farm as it is right at the station and the farm is in a high state of cultivation. Price, \$60 per acre.

No. 296.—1254 acres, 100 clear, the balance in good timber, enclosed with a good fence, has a beautiful building site, well watered. Price, \$10 per acre on easy terms. This will make a nice cheap farm, as it is only 3/4 mile from Fairfax station.

No. 303.—50 acres, 40 clear, 6 room house, barn 20x34, spring near the house, some fruit. The farm is well fenced and in good condition, 5 miles from R. R., near school, church and store. Price, \$1,000.00 cash. This is a very cheap place. Can give immediate possession.

No. 315.—183 acres, 7 miles from the R. R., about 23 miles from Washington. Price, \$20 per acre. 12 horse power mill and engine with planing, saw, grist mill and cob crusher on the place. Will sell the mill complete and give the purchaser the contract to save the timber that is on the place. This is a good chance for anyone to get a start.

No. 320.—210 acres, about 20 clear, 4 room house, spring nearby, near R. R. station, school church and store. Price, \$1,300 on easy terms.

No. 321.—100 acres, 50 clear, 4 room house, barn 20x30 and all necessary outbuildings, all kinds of fruit, 1/4 mile from R. R., school, church and store. Price, \$1,500. 1/2 cash, the balance to suit.

No. 322.—200 acres, 12 horse power mill, 6 room house, barn 50x20, brick meat house and all necessary outbuildings, plenty of pure water, peaches and apples, a large saw and grist mill with bowley crusher is run by water and steam power. The grist mill is 51 feet long and 42 feet wide. 3 1/2 stories high; saw mill attached is 40x40 has a capacity of 2,800 feet a day. The mill is kept busy all the time, is in a fine neighborhood, will make a fine investment. Price, \$5,500.00. This property must be seen to be appreciated.

It will pay you to get my new catalogue and come and inspect my property before you buy. I am at your service at any time to show you around.

J. F. JERMAN, Fairfax Va.,

Phone connection.

Branch office, Vienna, Va.

Heiskell's Ointment Cures Skin Diseases

For half a century Heiskell's Ointment has been used in all cases of skin disease with most gratifying results. Many have become entirely cured who had suffered untold pain and annoyance for years. One man in New Baltimore, Pa., writes that it cured him when he was raw all over. A lady in Philadelphia cured a case of letter of six years' standing in fourteen days, while a man in Allentown, Pa., cured his case of eczema that had troubled him for eleven years with less than two boxes of the ointment. These and hundreds of others have found that Heiskell's Ointment is worth more than its weight in gold. Being a purely vegetable preparation, Heiskell's Ointment soothes and heals where others fail. It allays the itching and burning common to all skin disease, and all yield quickly to its magic influence.

There are many varieties of skin diseases with confusing titles, but they are all susceptible to one and the same cure—Heiskell's Ointment. No one need suffer long if afflicted with any skin disease not of a constitutional character if they will apply this remedy. This includes such skin diseases as erysipelas, prurigo, eczema, milk crust, itching piles, scald-head, tetter, ringworm, blackheads, psoriasis, pimples, freckles. In some cases it is necessary to give some constitutional treatment, as in erysipelas, eczema, etc.; the liver should be toned to healthy action and the blood and all the secretions purified. In all cases of skin disease cures are hastened by the use of Heiskell's Medicinal Soap before applying the ointment, and in cleaning up the blood and liver with Heiskell's Blood and Liver Pills.

Heiskell's Medicinal and Toilet Soap contains in a modified form the medicinal properties of Heiskell's Ointment, and is particularly effective in slight disorders of the skin as rash, eruptions and abrasions. It cleans perfectly, and in the bath is a great luxury.

Heiskell's Blood and Liver Pills contain the active medicinal principles of various roots and herbs approved in medical practice.

Remember that there is no case so obstinate that Heiskell's Ointment will not cure it. The ointment is sold at 60c a box. Soap at 25c a cake. Pills at 25c a bottle.

You can get them of any druggist, or we will send by mail on receipt of price. Address Johnston, Holloway & Company, 631 Commerce St., Philadelphia, Pa.

HAD TETTER 52 YEARS.

B. H. Tazner, McDonald Mills, Ga., writes: "Tetterine is the only remedy I ever sold that would cure tetter so it would not return. Sold 6 dozen boxes in a year and guaranteed every box. I have never had to return the money for a single box. I sold a box to a man who had had tetter for 52 years. 2 boxes cured him again, and well." 50 cts. a box at druggists, or from J. T. Shuptrine, Manufacturer, Savannah, Ga.
Bathes with Tetterine Soap, 25c. cake.

"In the Green Fields of Virginia."

Remedy for ALL Health for ALL. Happiness and Independence for ALL. ALL kinds of FARMS at corresponding prices, but ALL reasonable.

MACON & CO., Orange, Va.

FINE FARMS in the great fruit grain and stock section of VIRGINIA. Best climate and water in the U. S. Near great markets, with best educational advantages. For further information, address
ALBEMARLE IMMIGRATION CO.,
Sam'l B. Woods, Pres. Charlottesville, Va.

Always mention the Southern Planter when writing advertisers.

The waist consists of the front and the backs, with the yoke, which is pointed at the front and round at the back. The waist is tucked and joined to the yoke and the seam is entirely concealed by the trimming. The closing is made invisible at the back, and the neck is finished with a regulation stock. The sleeves are the favorites of the season, that are snugly fitted at their lower portion and full above.

The quantity of material required for the medium size is $3\frac{1}{2}$ yards 21, 3 yards 27 or $1\frac{1}{4}$ yards of 44 inches wide, with $6\frac{1}{2}$ yards of banding for trimming.



5304 Tucked Yoke Waist,
32 to 40 bust.

The pattern 5304 is cut for a 32, 38 and 40 inch bust measure.

The skirt that gives the circular effect, yet, in reality, is divided into gores, is a well-deserved favorite and is much to be commended for many reasons. It gives all the graceful lines and folds of the circular model, while the fact of its being cut into sections does away with the tendency to sag, that is the one objection to that favorite model. This one is among the very best that have been offered and is treated in an entirely novel manner at the front, while it allows a choice of inverted plaits or habit back. In the illustration, one of the pretty new gray suitings is stitched with belting silk and finished with buttons and loops of braid, but buttons only can be used at the front and these can be arranged in rows or groups, as preferred, or, again, the hems can be left quite untrimmed, simply being stitched into place. All suiting and all skirting materials are appropriate, those of the heavier linen and cotton fabrics as well as those of silk and wool,

U. M. C. METALLIC CARTRIDGES



HAWKS OWLS CROWS

and other pests are never safe in the highest tree if you shoot U. M. C. cartridges. Made to fit every make and model of rifle.

U. M. C. cartridges are guaranteed, also standard arms when U. M. C. cartridges are used as specified on labels.

THE UNION METALLIC CARTRIDGE COMPANY
BRIDGEPORT, CONN.
Agents: 715 Broadway, N. Y.

Seed Corn.

ALBEMARLE PROLIFIC CORN

Stood first last year in tests of Georgia Experiment Station, as it has done before in other tests. Has made 163½ bu. in Albemarle, 132½ bu. in Shenandoah, 100 bu. in Culpeper, large yields in Ohio, New York and Illinois, and other Western States. On rich is not a poor land corn—it has never been beaten for grain or for ensilage. Get the PURE SEED. We grow nothing else.

ARROWHEAD STOCK FARM.

Sam'l B. Woods, Prop., Charlottesville, Va.

COW PEAS.

Our Mr. Dunlop has just made a trip through North and South Carolina and has gathered interesting valuable to farmers.

This, with our own experience, we are getting out in printed form and will send it to anyone for 10cts. to cover expenses. We will give you valuable information as to purchasing peas.

D. F. DUNLOP & CO., Boxwood,
Henry Co., Va.

VIRGINIA FARMS
\$3 PER ACRE AND UPWARDS.
EASY PAYMENTS. CATALOGUE FREE.
GEO. E. CRAWFORD & CO., Richmond, Va.
Established 1878.

Send Your Order For

Seeds

TO

DIGGS & BEADLES,

Seed Merchants,
RICHMOND, - - VA.Who are Headquarters for High
Quality Seeds at Reasonable Prices.

Grass and Clover Seeds, Selected
Seed Potatoes, Cow Peas, Field Beans,
Rape, Sorghums, Millets, Selected Seed
Corn, Garden Tools, Cornell Incu-
bators and Brooders, Berry Cups, Poultry
Feeds, Fertilizers, and every thing carried
by an up-to-date Seed House.

Write them for quotations stating va-
rieties and quantities wanted. Their
prices are right. Southern Agents for
the celebrated

Orchilla Guano

AND

Swift's Fertilizers.

Catalogue Mailed Free.

ALFALFA SEED

We have on hand, at all seasons, a fresh
supply of pure Alfalfa seed, free from
Dodder and all other injurious weeds. Our
seed cannot be surpassed anywhere. Write
to us at any time for either large or small
quantities and we will be glad to quote
prices.

J. E. WING & BROS.,
Mechanicsburg, O.

YELLOW SOJA BEANS.

Home grown for several years, for sale in
any quantity desired up to 500 bushels.
Average yield last year, 3 tons hay and about
20 bushels seed per acre. Can be cut with
mower and threshed with wheat thrasher;
the best, most nutritious and prolific legume
for eastern Virginia. For prices apply to

WM. C. STUBBS, Valley Farm, Farm,
Sassafras, Gloucester Co., Va.

NEW ERA COW PEAS

For sale. Apply to E. A. Perry,
Nicanor, N. C.

500 BUSHELS

BLACK PEAS

For sale. Apply to R. F. BROADDUS, R. F.
D., No. 1, Highland Springs, Va.

FINEST VIRGINIA

Ensilage Seed Corn

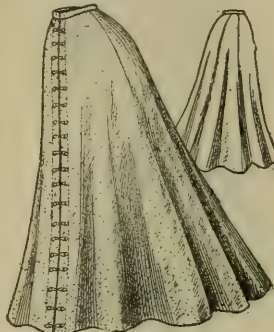
For sale at \$1.25 per bu. or \$1 in 5 bu. lots.
Has stalks that measure over 17 ft. an
full of blades.—E. L. GOSS, SOMERSET, Va.

Always mention the Southern Plant-
er when writing advertisers.

the model being a pronounced favor-
ite for each and for all.

The skirt is cut in six gores with
an additional piece at the center
front, over which the front edges are
arranged. These front edges are
turned under to form hems, and the
closing can be made at the back or
beneath the right front, as may be
liked.

The quantity of material required
for the medium size is $8\frac{1}{2}$ yards 27,
 $5\frac{1}{2}$ yards 44 or 52 inches wide when
material has figure or nap; 7 yards
27, 5 yards 44 or $4\frac{1}{2}$ yards 52 in-
ches when it has not.



5305 Six and Circular Skirt,
22 to 32 waist.

The pattern 5305 is cut in sizes for
a 22, 24, 26, 28, 30 and 32 inch waist
measure.

The simple frock that is easily made
is the one that busy mothers find
most attractive and here is a model
that is so pretty at the same time that
it becomes desirable from every
point of view. In the illustration it
is made of pale blue chambray with
trimming of white embroidery and
is just as dainty as well can be. It
is however, appropriate for all the
simpler washable materials of the
coming season and also for the light
weight wools, such as cashmere and
the like, of immediate wears, while
again it allows a choice of the full or
plain front, so that there are many
possibilities found in the one design.
The full front is prettier and perhaps
better for the dressier frocks, but the
plain front is equally correct and is
particularly desirable for the remodel-
ing which often means limited ma-
terial. The skirt is simply straight
and gathered at the upper edge, so
that the whole dress can be laundered
with perfect ease and success.

The dress is made with a plain
body portion, the full front and the
straight skirt. The full front can be
arranged over the plain one or used
singly as preferred. The skirt is
gathered and joined to the waist and
the belt cocoals the seam. The sleeve
either can be gathered at their lower

Schuyler's

BRED-TO-PAY

WHITE WYANDOTTES

ARE EXCELLENT LAYERS.

Eggs from Selected Breeders,
\$3.00 the sitting. 4 sittings \$10.

BABY CHICKS.

Progeny of Choice Matings, 25c. each.
Columbian Eggs, \$5.00 the Sitting.

Wyandottes, no Chicks for Sale.

From Fine Bred Utility Stock,

18 cents each;
\$4.50 for 25;
\$8.00 for 50.

Why not procure New Blood from
me this spring and lay the foundation
of a persistent rough weather laying
flock—the kind that pays.

Send for useful desk blotter, it's free.

COLFAX SCHUYLER,

Box P-212 Jamesburg, New Jersey.

WHITE

Wyandottes

EXCLUSIVELY.

I am prepared to furnish Eggs for hatch-
ing in large or small lots, from vigorous,
farm-raised stock, produced from standard
strains.

INCUBATOR EGGS ON SHORT NOTICE.

G. F. POINDEXTER, Greenlee, Rock-
bridge Co., Va.

SILVER LACED WYANDOTTES, EXCLUSIVELY.



I have bred and shipped
leading varieties of pure-
bred fowls since 1880; keep
NOW S. L. Wyandottes only.
—There's a reason? NONE
OTHER. Eggs, fresh fer-
tile, from selected standard-
bred stock, 13 for \$1.25; 30
for \$2.00; 100 for \$6.00. Safe
arrival and satisfaction.

S. P. YODER,
Denbigh, Va.

Golden Wyandottes

EXCLUSIVELY.

Eggs for sale from this GRAND STRAIN OF
WINTER LAYERS at \$1.00 per sitting of 15; \$1.75
per 30. Satisfaction Guaranteed

No stock for sale

Miss KATIE THOMPSON, Neverlet, Va.



WHITE PLYMOUTH ROCK

and PEKIN DUCK eggs for Hatch-
ing.

F. S. KILGOUR,

"The Pines," R-2, Rockville, Md.

Eggs for Hatching

From Best American and Imported Strains. \$2.00 per Sitting; \$10.00 per 100 of following breeds.

S. C. Buff Orpingtons

White Plymouth Rocks

and **S. C. Black Minorcas,**

S. C. White Leghorns

\$1.50 per sitting,

\$8.00 per 100.

We breed only thorough-bred poultry of standard qualities, have 3000 healthy chicks hatched Feb. and March. Largest practical Poultry Farm in Virginia. **FOX HALL POULTRY FARM,**

R. F. D. No. 2, Norfolk, Va.

Southern Bell Phone 2212-

EGGS from

KING'S QUALITY

S. C. BUFF ORPINGTONS
and **M. B. TURKEYS.**

Price of Orpington eggs, \$1.00 to \$1.50 for 15. Turkey eggs, 25c. each. Can also furnish Barred Rock eggs at \$1.00 for 15.

GUARANTEED TO REACH YOU IN GOOD CONDITION AND TO BE REPRESENTED.

We have one **ORTHORN BULL CALF** for sale. Write us.

QUEENLAND FARM, R. F. D. 3, Box 7, Hagan, Va.

"Money in Poultry."



Our new 1906 book tells how to make it. Tells how to treat diseases. Feed and care for poultry successfully. Illustrates and tells all about 40 varieties **FAMOUS THOROUGHBRED FOWLS,** with Low price on stock and eggs. Send 6c. in stamps to **JOHN E. HEATWOLE, Box L, Harrisonburg, Va.**

S. C. Brown Leghorn

Eggs, 75 cents for 15. Book your orders now for Spring Delivery. Special care given to each order. Satisfaction guaranteed. **MEHERRIN POULTRY FARM, Branchville, Va.**

The manager of the above farm is well known to me and is thoroughly reliable. **S. B. COGGINS, Agt., Southern Express Co.**

For B. P. ROCK and M. B. TURKEY.

Eggs, see my ad. in April issue.

E. F. SOMMER, Somerset, Va.

edges and joined to straight cuffs or tucked and finished with the roll-over sort. Again, the standing collar or the turn-over collar can be used as liked while the trimming on the waist is optional.

The quantity of material required for the medium size (8 years,) is $4\frac{1}{2}$ yards 27, $3\frac{1}{4}$ yards 36 or $2\frac{1}{2}$ yards 44 inches yld with $3\frac{1}{2}$ yards of banding and 2 yards of edging 4 inches wide trimmed as illustrated.



5300 Girl's Dress, 4 to 10 years.

The pattern 5300 is cut in sizes for girls of 4, 6, 8, and 10 year of age.

We can furnish these patterns at 10 cents each.

SOUTHERN PLANTER,
Richmond, Va.

STUDY SHORTHAND AT HOME.

Southern Correspondence Schools, Inc.

The untold riches of the South are just being appreciated and developed. With this development comes the ever-increasing demand for stenographers. Thousands of young men and young women possessing talent and with ambition cannot leave home or present occupation to perfect themselves for the position always awaiting competent shorthand writers. Messrs. J. H. Morris and Geo. L. Hart, of the well-known firm of Morris & Hart, of Roanoke, Va., expert shorthand reporters, who are constantly practicing their profession all through Virginia, North Carolina, West Virginia and Tennessee, have come to the rescue. They have founded The Southern Correspondence Schools and will personally give instructions to students by mail. The reputation of

EGGS FOR HATCHING

B. P. ROCKS, S. C. Brown Leghorns. Our birds are directly bred from prize winners at N. Y., Boston, Phila., Pan America, Chicago, St. Louis and leading southern shows. Eggs from Exhibition matings \$2. per 15; \$10. per 100. Eggs from Utility matings \$1. per 15; \$6. per 100. Two birds each guaranteed or sitting duplicated at half price. Our business is growing! why? because we started with the best stock money could buy and have pleased our customers. Why not let us start you right with a setting or two of eggs. Hatch your winners now for next fall shows. We breed only the best and use the double mating. **STRAWBERRY HILL POULTRY YDS., Box 287, Richmond, Va.,** Breeding yds. 4 miles from City on C. & O.



ARE YOU LOOKING FOR PRIZE WINNERS

S. C. Rhode Island Reds,
Light Brahmas,
Barred, Buff and White
Plymouth Rocks,

S. C. White Minorcas

and **S. C. White Leghorns?**

Then order your eggs for hatching from

The Oak Grove Poultry Farm,

Mrs. Clara Meyer, Prop.,

R. F. D. No. 2, NORFOLK, VA.

Our birds won first, second and special prizes at the Madison Square Shows. Price—1st, pen \$5.00, 2d, Pen \$3.00, and 3d, Pen \$2.00 for setting of 15. Incubator eggs \$10.00 per 100.

POWHATAN POULTRY YARDS, CHANTILLY, VA.

We are offering eggs for hatching from our yards of

S. C. BROWN LEGHORNS

S. C. WHITE LEGHORNS,

BARRED PLYMOUTH ROCKS

White Wyandottes,

LIGHT BRAHMAS.

\$1.00 per 15, \$2.50 per 45 \$5.00 per 100.

We have spared neither time nor expense in the perfection of our breeds, to make them among the best that can be obtained.

Satisfaction guaranteed.

Prompt attention to orders.

J. Harrison Yates Manager,



EGGS FOR HATCHING.

BARRED, BUFF AND WHITE PLYMOUTH ROCKS; SILVER, WHITE, BUFF and PARTRIDGE WYANDOTTES; BLACK MINORCAS; BLACK LANGSHANS; LIGHT BRAHMAS; PARTRIDGE COCHINS; WHITE and BROWN LEGHORNS.

Price, \$1 for 15; \$5 per 100; 2-3 hatch guaranteed.

A few more nice White and Brown Leghorns and some nice Cockerels of the different breeds for sale.—**OAKLAND POULTRY FARM, C. J. WARINER, Manager, Ruffin, N. C.**

EGGS FOR HATCHING.

B. P. ROCKS,

S. L. WYANDOTTES

BLACK MINORCAS.

Headed by prize winning stock of Madison Square Garden, N. Y. From strong, healthy, vigorous birds. Strictly fresh eggs for sale, \$1.00 for 15.

Mrs. W. M. JONES, Crofton, Va.



Glenoe Farms Verona, N. C.

We desire to announce to the public that we have purchased the entire BILTMORE STRAINS of S. C. and R. C. WHITE LEGHORNS and S. C. BROWN LEGHORNS, acquiring all their prize winners, interest and will for said breeds; in addition to the fine strains that we have been carrying, BARRED PLYMOUTH ROCKS, WHITE WYANDOTTES, LIGHT BRAHMAS, WHITE and PARTRIDGE COCHINS, WHITE CRESTED BLACK SPANISH, BRONZE TURKEYS and MUSCOVY DUCKS and MAMMOTH ROUEN DUCKS.

We will be glad to quote you prices on stock and eggs.

F. M. PRIDGEN, Sup't.,
M. M. Grandin, Manager.



TREVILLIAN POULTRY YARDS
HEADQUARTERS FOR
BARRED PLYMOUTH ROCK EGGS
\$1.40 per sitting of 15; 2 settings
\$2.75; 3 settings \$4.00 and \$6.00
per 100.

Yards headed by some world-renowned, prize-winning blood; our matings this season should produce some of the great birds of the breed. We sell A. C. Hawkins' strain and E. B. Thompson's "Kings," noted for their massive size and as winter layers. Our stock will improve yours, and our eggs are cheap, quality considered. Cheap eggs from inferior birds mean good money squandered, so write us before buying as we are sure to please you. C. DANNE, JR. Prop.
John Mahanes, Mgr. - Trevillian, Va.

Hollybrook Farm.

We have an extra fine lot of

Barred PLYMOUTH ROCK Cockerels.

Price, first-class birds, \$1.50; extra select birds, \$2.00 each.

PARTRIDGE WYANDOTTE COCKERELS, from prize winning stock. Price, \$2.00 each for first-class birds; \$2.50 each for extra select birds.

All crated and delivered to express office here. Address, HOLLYBOOK FARM, Box 330, Richmond, Va.

Maxwelton Poultry Yards.

Pure-bred poultry for egg machines. S. C. BROWN LEGHORNS, W. WYANDOTTES, B. PLYMOUTH ROCKS. Eggs, 13 for \$1.25; will have a limited number of Silver Spangled Hamburg and White Leghorn eggs; 13 for \$1.50. Nothing but fine stock. Address:
MAXWELTON POULTRY YARDS,
Maxwelton, W. Va.

BARRED PLYMOUTH ROCK

Eggs, Hawkins, Miles, McClave and Thompson strains. Eggs from high scoring birds at \$1.00 for fifteen straight.

PEKIN DUCK EGGS, from choice birds, \$1.00 for thirteen.—LESLIE D. KLINE, Vaucluse, Va.

these gentlemen is a guarantee of success.

Every ambitious young man and young woman wishing to take up this interesting and lucrative study should communicate with this school. The advertisement of The Southern Correspondence Schools appears in this issue, to which your attention is directed.

MISSILES OF MODERN WARFARE, INVENTED BY SOUTHERNERS.

Mary Washington.

Two amongst the most important missiles of modern warfare by land and sea are due to the invention of Southern men; I refer to the Gatling gun and to the use of torpedoes in coast defence and naval warfare. In regard to the first, the inventor was Richard Jordan Gatling, who was born near Murrefreesborough, N. C., September 12th, 1818. In boyhood, he aided his father in designing machines for sowing cotton seed and thinning young plants, and when 20 years old he invented a screw for steamers. Among his later inventions were a machine for sowing rice and wheat, a new hemp brake and a steam plough. Another of his inventions was one for transmitting power by means of compressed air. But his fame is principally based on his great invention of a repeating or machine gun, known as the Gatling gun, the most original and successful battery or multiple gun yet devised. This invention was made in 1861-2, while Dr. Gatling was living in Indianapolis, but scarcely came into use during the Civil War. Since then it has been very much improved and is now made in various forms, and used by most civilized nations, both as an army and a navy gun.

Advancing years did not seem to dull Dr. Gatling's inventive genius, nor to slacken his energy. Late in life he invented a motor plow to be run by a gasoline motor of sufficient power to propel the machine with the share at any depth up to 12 inches. This plow was intended to harrow, roll and seed the ground at the same time, but he died whilst engaged on it, so I do not know whether it was ever carried to perfection. His death occurred in February, 1903. He married a Miss Saunders, of Indianapolis, whose parents were Kentuckians, and whose sister was the mother of General Lew Wallace.

The use of torpedoes in coast defence and in naval warfare was originated by the illustrious Matthew F. Maury, though the invention was improved on and perfected by his son, Captain Richard L. Maury, and by other Confederate naval officers. The use of this mighty engine of naval warfare had its origin in the waters of James River, Virginia, during the late Civil War and by means of it the little Confederate navy

—SPECIAL—

ORPINGTON PLACE (S. C. Buff Orpington Specialists), will furnish guaranteed eggs as follows. From:

Pen No. 1. Fifteen best females from a 600 flock, mated to a Cook Cockerel, imported from Cook's English Farm "Orpington House," at \$3 for 15 eggs.

Pen No. 2. Headed by a Cook strain cock of a solid golden buff color, at \$2 for 15 eggs. Free range flock of 70 choice hens and pullets, mated to cocks valued at \$15 to \$25 each, at \$1 for 15, \$3 for 50.

We are agents for New Method Incubators and Brooders. Send us 60c. for Cook's Orpington Poultry Journal for 12 months and keep posted on Orpingtons.

FAY CRUDD, Mgr.,
Jeffress, Mecklenburg Co., Va.

Glenview Orpingtons. Single Comb Buffs Exclusively.

Guaranteed eggs for hatching, from best matings. \$3.50 per setting; 6.00 per thirty. From Utility pens, \$2.50 per setting.

EXPRESS CHARGES PREPAID.
B. S. HORNE, Kewick, Va.

BUFF ORPINGTONS

Exclusively. We have a farm range flock headed by very fine males—all solid buff—and will sell eggs from same at \$1.00 for 15 or \$3 for 50. Will sell 2 very fine cocks to coveys in-breeding, at \$2.50 each. Two cockerels at \$1 each. Satisfaction guaranteed. All orders receive careful attention.

G. W. HARDY, Jeffress, Va.,
R. F. D. No. 1

S. C. BUFF ORPINGTONS,

EXCLUSIVELY.

Eggs \$1.50 for 15, \$2.50 for 30. Special rates for large lots. Have a few choice cockerels and pullets, at \$2.00 each. These birds are well bred, well grown and entirely free from disease. And a bargain at prices named.

Each order promptly filled.
(Dr.) T. C. WARE,
P. O. Box 113. Clarksville, Va.

S. C. BUFF ORPINGTON,

S. L. WYANDOTTE

Eggs, 15 for \$1.00

R. and S. C. BROWN and S. C. WHITE LEGHORN and E. B. ROCK.

Eggs 15 for 90c.; 50 for \$2.50. All of the best strains.—Mrs. R. K. CASSELL, R. F. D. 3, Wytheville, Va.

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S. C. BUFF ORPINGTONS

EXCLUSIVELY.

After May 1st, and for the rest of the season, my eggs will be sold at half price, 75 cts per 15 from my two select pens, A and B. Have been getting \$1.50 per 15 all the season.

Address and make all orders payable to B. O. POULTRY YARD, Rapidan, Va., R. F. D., No. 1.

S. C. Buff Orpington

and R. C. BROWN LEGHORN eggs, \$1.00 for 15; choice stock. Also 10 B. Orpington hens, \$1.00 apiece.—MRS. MAY WOOD, Petersburg, Va., R. F. D. 1.

Eggs for Sale

B. P. ROCKS, Thompson Strain, WHITE WYANDOTTES, Fabel Strain, S. C. BUFF ORPINGTONS, Cook Strain, S. C. White and Brown Leghorns. 15 Eggs for \$1. PEKIN DUCK EGGS, 12 for \$1. Indian Runner Duck Eggs, 12 for \$1.50.—JAMES M. CASSELL, Wytheville, Va.

WHITE Plymouth Rocks S. C. Buff Leghorns AND Pekin Ducks.

If you want quality, give me your orders for Eggs for hatching, and I will guarantee satisfaction. My stock is second to none and bred for UTILITY as well as for SHOW. EGGS, \$1.50 for 15; \$2.50 for 30; Pekin Duck Eggs, \$1 for 9.
SOME CHOICE COCKERELS FOR SALE AT BARGAIN PRICES. W. O. RONDABUSH, Uno, Va.

MINORSVILLE POULTRY PLACE.

Barred Plymouth Rocks.
Stock and Eggs for Sale.
S. C. WHITE LEGHORNS.
Nice lot of cockerels, \$1 to \$2.
MAMMOTH PEKIN DUCK
Eggs, \$1 per 11. Other Eggs, \$1 per 15.
The above are of the finest strains and carefully mated. You will do well to place your order now.
GEO. GRAVES, Mgr., Venter, Va.

White Plymouth Rocks Brown Leghorns

EGGS \$1.50 sitting.

EGGS \$1.00 sitting.
Best Business Strains.

R. W. HAW, Centralia, Va.

BARRED

PLYMOUTH ROCKS.

bred from the best layers. A few more pullets for sale. Eggs, \$1.00 per 15; \$1.75 per 30 or \$5. per 100. Satisfaction guaranteed.

A. J. S. DIEHL, Port Republic, Va.

BARRED ROCKS

Best strains. New blood annually. Barred to skin, fine size and bred to lay. No other breed on farm. Eggs 15 for 75c, 30 for \$1.00. Securely packed and delivered at express office in Bedford City, Va.—Mrs. WM P. BURKS, Route No. 1, Bedford City, Va.



EGGS FOR HATCHING

S. C. W. and BROWN
LEGHORNS, BARRED
PLYMOUTH ROCKS, R.
and S. C. RHODE ISLAND
REDS and WHITE WYANDOTTES at \$1 per 15; \$1.75 per 30; \$2.75 per 50; \$5 per 100. Valley View Poultry Yards, J. D. GLICK, Prop., R. F. D. 19, Dayton, Va.

BERGER'S

BARRED PLYMOUTH ROCKS

bred for utility and beauty. Eggs from selected matings, \$1.50 for 15; \$2.75 for 30; \$4 for 45; Eggs from utility mating \$1 for 15; \$5 per 100. Your patronage solicited.—A. F. BERGER & SON, R. F. D. 3, Richmond, Va.

EGGS--ORDER--HERE.

Mammoth Bronze turkey (famous National selection from the heavy breeders), headed 45-lb. tom. Barred Plymouth Rock and White Wyandotte eggs (Hawkins and Duston). \$1.00 POULTRY YARDS, MISS C. L. SMITH, Prop., Croxton, Va.

totally revolutionized modern naval warfare.

Bare as we were of resources, shops, machinery and experienced mechanics we accomplished more in a few years than any other nation has been able to do since with all their advantages. In 1865 the secretary of the U. S. navy reported to Congress that the navy had lost more ships during the war from Confederate torpedoes than from all other causes combined.

But it would require a full volume to do justice to this subject. Suffice it to say, it was a most important Southern invention.

After the war Captain Maury was considered the chief authority on the use of the new weapon, and by request of the several governments of Europe he instructed in the use of the torpedoes representatives of France, England, Russia, Holland, and Germany, all of whom adopted his system and made the torpedo one of the chief branches of their armament, and, yet, with every advantage, none of these nations have done such execution with the torpedo as did the little Confederate navy of 40 years ago.

In the late Cuban War, when the U. S. navy first commenced to loom up into prominence, it was a Southerner, a Mr. Strauss (I think of Lynchburg, Va.) who invented the super-imposed tower, and it was a Southerner, Lieut. Cleland Davis, of Louisville, Ky., who perfected for the government an armor plate which has met with general favor. He was an ensign in the navy during the Spanish-American War, on board the "Helen," and devised a plan for taking machine guns from ships and using them on land. He proved the value of this idea later in a hot fight with the Filipinos, and was promoted in consequence. The commanding general (McArthur) considered young Davis' contrivance sufficiently important to be the subject of a cablegram to the government at Washington. The role of inventor, however, was not the highest one played by this gallant young fellow, who in addition to his service in the Philippines, afterwards distinguished himself by his heroic efforts to rescue the injured seamen in the explosion on the "Missouri."

Rockingham Co. Va., Mar. 20, '06.

I consider the Southern Planter invaluable to farmers and all rural classes. The "Spraying Calendar for 1906" in the March number is worth the cost of an entire year's subscription.

A. T. POWELL.

Somerset Co., Md., Feb. 15, '06.

I place a high value on the Southern Planter and I would rather miss any number of any other agricultural paper than the Southern Planter. I have read it for several years and it is always a welcome visitor.

J. W. HALL.



Valley Farm

BARRED ROCKS
S. C. B. LEGHORNS
(Forsyth Strain).

Eggs for sale.
Prices right.
CHAS. C. WINE, Mt. Sidney, Va.

EGGS.

BRIGHT'S BARRED PLYMOUTH ROCKS.

\$1.00 per sitting.
\$5.00 per hundred.

MRS. JNO. F. PAYNE, Charlottesville,
Clairmont Farm. University of Va.

EIGHT CHOICE

Barred Plymouth Rock

Cockerels for sale. Apply to HATTON GRANGE, Hutton, Va.

WALSH'S BARRED ROCKS

Foundation, Best Blood; my aim, improvement; results, gratifying.
Some choice breeding females for sale after May 15th. L. W. WALSH, Lynchburg, Va.



Poplar Hill Poultry Farm

**SILVER LACED
WYANDOTTES**

EXCLUSIVELY.

Fresh eggs for hatching from high scoring birds \$1 per 15; \$5 per 100.
Satisfaction guaranteed to every customer.

Dr. H. H. LEE, Prop., R. F. D. 4 LEXINGTON, VA.

WHITE WYANDOTTES

EXCLUSIVELY

From pure bred Duston strain.

EGGS, \$1.50 FOR 15.

No better to be had at any price, 20 spring cockerels for sale at reasonable prices. Write for prices.—ELLERSON POULTRY FARM, J. W. Quarles, Prop., Ellersson, Va.

SPRING BROOK POULTRY FARM,
Culpeper, Va.

**S. C. B. LEGHORNS
and Black Minorcas**

Exclusively. The two breeds that fill the egg basket. Eggs, 75c, and \$1 per sitting.
Satisfaction Guaranteed.

R. C. WHITE LEGHORNS

and BUFF PLYMOUTH ROCKS. Eggs, \$1 per 15; \$5 per 100.—FRED. NUSSEY, Massaponax, Va.

Brown Leghorn

Hens, 1 and 2 years old, for sale; prices a matter of correspondence. TOPLAND POULTRY FARM, Blacksburg, Va.

Wanted at Once

50, 75 or 100 good young WHITE or BROWN LEGHORN hens; last years crop. Must be good, pure bred stock. A quick sale for cash for party who has the right kind. No show stock required. No scrubs accepted. R. C. BRAUER, Box 204, Richmond, Va.

Eggs! S. C. B. Leghorn Eggs! GOOD ONES.

\$1.00 for 15. \$6.00 per 100
\$50.00 per 1000.

Ship Eggs day order is received.
By Express Anywhere.
Newly hatched chicks, \$3.00 for 50; \$15.00 per 100.

By Express not over 200 miles. No Turkey eggs this month.
Send Check, P. O. Order, Ex. Money Order or registered letter.
CAL HUSSELMAN, Roxbury, Va. R. F. D. 1.

S. C. WHITE LEGHORNS.

Strong, healthy, vigorous, farm-raised stock. Birds for sale at all seasons. Eggs from this grand strain of winter layers, \$1 per 15; \$5 per 100; guaranteed 75 per cent fertile. Yearling hens and pullets, \$1 each. Have also added a pen of very fine BARRED PLYMOUTH ROCKS to my yards. Eggs, \$1 per 15; \$5 per 100.

J. A. ELLETT, Beaver Dam, Va.

EGGS

from WHITE HOLLAND TURKEYS, \$2.00 per doz; \$15.00 per 100.

S. C. WHITE LEGHORNS, \$1.00 per 15 \$5.00 per 100.

WHITE PLYMOUTH ROCKS, 75c. per 15. \$4.00 per 100.—G. W. MOSS, Guinea, Va.

SINGLE COMB

WHITE LEGHORN

Eggs 5c. each. Also some good breeders for sale. FIEDMONT HEIGHTS FARM, Yancey Mills, Va.

EGGS FOR HATCHING.

WHITE WYANDOTTES

(Duston Strain)

bred for size and beauty. \$1 per sitting of 15.

A. L. Parker, Ashland, Va.

FALL CREEK POULTRY FARM.

PURE-BRED SWINE AND POULTRY

Cherry Red TAMWORTH, POLAND CHINA and BERKSHIRE Sows, Shoats, and Pigs for Sale.

ROSE COMB BROWN LEGHORN and WHITE PLYMOUTH ROCK, Cocks, Cockerels and Eggs for Sale.

All Stock Registered and guaranteed to be of the very best and purest breeds.

Address or visit the PARK VIEW STOCK FARM. R. B. Yowell, Prop., Culpeper, Va.

S. C. Buff Orpingtons

Not the utility strain, but utility birds selected from breeders entitled to show room until perfection is attained in both. Fertile eggs from above, \$1 per 15; \$3 per 50.
N. B. CRUDUP, Jeffers, Va., R. F. D. No. 1.

EGGS FOR SALE.

From pure bred R. C. RHODE ISLAND REDS. Prize-winning strain at Chicago and Indianapolis Poultry shows. \$1.50 per setting of 15 eggs. O. E. PETERSON, Pamplin City, Va.

EGGS FOR HATCHING.

ROSE COMB RHODE ISLAND REDS. \$1 per sitting of 15. No other breed kept on the farm.—MRS. JOS. M. HURT, Blackstone, Va.

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WIRELESS TELEGRAPHY THE INVENTION OF A VIRGINIAN.

The most remarkable of our modern inventors is one whose claims are surprisingly little known to the world. I refer to the late Dr. Mahlon Loomis, of Virginia, who was undoubtedly the original inventor of wireless telegraphy, a fact as well authenticated as anything in the range of history or biography, for it is on record that Dr. Loomis presented in 1872 a patent for his wonderful invention, but as usual with men of genius, in advance of their age, he had to undergo the sneers, ridicule and opposition of "scientists, capitalists and so-called 'practical men.'"

He succeeded, however, in demonstrating on a small scale the feasibility of his scheme, as he transmitted messages without wires between stations 14 miles apart on the spurs of the Blue Ridge. He spent all his private means in experimenting on his great invention, but these modest funds were totally inadequate to carry out so great an enterprise. The winter after he had gotten his invention patented, he memorialized Congress for an appropriation of \$50,000 to carry it out, which however he never succeeded in obtaining, but on January 16th, 1873, the U. S. Senate passed a bill incorporating the Loomis Aerial Telegraph Company, and this was signed by President Grant on January 21st.

Loomis may justly be called a Virginian, for though he was born in what is now called West Virginia, it then formed a part of the Old Dominion. When he was about ten years old his father moved to Fairfax County, Va. He invented wireless telegraphy about 25 years before Marconi did so.

It does not seem probable that Marconi ever heard of Loomis or his invention. It was not printed abroad; the people around him not compre-

ROSE and S.C.

RHODE ISLAND REDS.

S. C. Brown and White Leghorns, White Wyandottes, and Barred Plymouth Rocks
Eggs \$1.00 per 15; \$1.75 per 30;
\$2.75 per 50; \$5.00 per 100. RIVERSIDE POULTRY FARM,

J. B. COFFMAN & SONS, Prop'rs.
R. F. D. 19, DAYTON, VA.



R. I. RED EGGS

1 sitting \$2; 2 or more \$1.50 each. One 200-egg incubator and 50 chick brooder used 3 times.—JNO. W. MORRIS, Waldo, Va.

Single Comb White Leghorns

Wyckoff strain of celebrated layers. Eggs \$1.00 for 15. BARRED PLYMOUTH ROCKS Parent stock from Biltmore, Eggs \$1.00 for 15.—COTTON VALLEY FARM, Tarboro, N. C.

EGGS FOR SALE.

I am now booking orders for eggs from choice pens of ROSE COMB WHITE WYANDOTTES, S. C. R. I. REDS and S. C. BUFF ORPINGTONS. Write me for prices. Satisfaction guaranteed. Address, FOREST PARK FARM, Charles W. Smith, Prop., Williamsburg, Va. Box 33.

S. C. BLACK MINORCAS

exclusively. Pens headed by Northup and Dugan cockerels, sired by Rochester winners. Eggs 15, \$1.00; 30, \$1.75; 45, \$2.25. Edgar Kline, Middletown, Va.

The Hens that lay,
Are the ones that pay.

S. C. Black Minorcas

exclusively. Eggs from first-class stock, \$1.00 for 15; \$1.75 for 30; \$2.25 for 45.

J. S. WORSHAM, Lynchburg, Va.

MAMMOTH

BRONZE TURKEYS

from prize winning strains. SILVER LACED WYANDOTTE and BARRED PLYMOUTH ROCK Fowls. ENGLISH BERKSHIRE pigs. Just weaned. Reasonable prices and satisfaction guaranteed.—J. G. BUFORD, R. F. D., No. 2, Dublin, Va.

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An Incubator

get our free catalogue. It will give you some money-saving points even if you do not buy of us. COLUMBIA INCUBATOR CO., Box 11, Delaware City, Del.

GREAT CLOSING SALE

COLLIE DOGS.

2 stud dogs, 9 brood bitches, 33 pups; also for hounds. 30 S. C. B. Leghorn eggs, \$1; \$3.25 per 100; 15 B. P. Rock Eggs, \$1; 100 for \$5. J. D. STODGHILL, Shelbyville, Ky.

DEVON HERD. HAMPSHIRE DOWN FLOCK
ESTABLISHED 1884. ESTABLISHED 1880.

DEVON CATTLE

BULLS and HEIFERS,

Hampshire Down Sheep,

RAMS and EWES.

ROBT. J. FARRER, Orange, Va.

French Coach Horses

THE WORLD'S GREATEST HARNESS HORSE.

Having made a business connection with Mr. E. M. Barton, owner of the Sedgely Farm, Hinsdale, Ill., Importers and breeders of French coach horses, I am in a position to offer to lovers of fine horses in Virginia, the very best representatives of the best strain of harness horses in the world.

Stallions and Mares for sale. Write for prices and plan.

INTREPEDE by CHAMPION INDRE in service.

Visitors cordially invited to call and see the horses at the CEDARS FARM, Midlothian, Va., Also breeders of Jersey cattle, Duroc Jersey hogs, B. P. R. fowls.

WM. G. OWENS, Richmond office 1111 Cary St.

HORSES FOR SALE

GRAY NORMAN gelding, foaled May, 1902, weight 1300 lbs.

BAY GELDING, foaled May, 1902, by Iron Crown, Vol VII, American Stud book, weight 1070, height 15 5/8.

GRAY MARE, foaled April, 1902, by Aureus by Eolus out of Sample.

IRISH SETTER, born 1902, Sire Judge Pluckett, dam Redstone Lass.

Prices and information, apply to E. H. STORMS, Mechum's River, Va.

Registered PERCHERON STALLION.

SULTAN 34066 for sale; will be 3 years old April next, weighs over 1,500 lbs. black in color with white markings on face and legs. Will sell cheap for quick sale. Address: F. B. ALBERT, Roanoke, Va., R. F. D. No. 4.

KENTUCKY JACKS and STALLIONS.

100 head Jacks, Jennets, Saddle and Trotting stallions. We won more premiums on our jacks at the Kentucky State Fair 1905, than all other breeders combined. Our saddle stallions are sired by 7 of the greatest saddle stallions in Kentucky. Come to see us we guarantee you. J. F. COOK, & CO., Lexington, Ky. Branch Barn, Marion, Kansas.

7 of the greatest saddle stallions in Kentucky.

Come to see us we guarantee you. J. F. COOK, & CO., Lexington, Ky. Branch Barn, Marion, Kansas.

JACK (AT STUD) ALEXANDER.

Highly bred registered Kentucky black JACK with white points; 15 1/2 hands; broad flat bone; ideal conformation; good middle; big well-formed feet. Males cost less to raise and sell higher than horses. Why not breed to the best Jack in Va., and make money?

Pedigree and terms from CLARENCE PEDGLEY, Elko, Henrico Co., Va. (Old Pollard Farm.)

hending the greatness of the man nor of his invention. It is probably one of the numerous instances of a great idea developing near the same time in the minds of different persons living far apart, and without any communication existing between them. Marconi was more fortunately situated than Loomis. The world was more ripe for the great invention than it was a generation before, in Loomis' day, and friends and means were raised up to help Marconi fully and effectually carry out his great idea, which Loomis, confined to his own limited means, had only been able to do partially. After devoting his life to this aim, he died in 1886 at Terra Alta, W. Va., the residence of his brother, in full faith that the world would one day understand and acknowledge the grandeur of his discovery. The whole matter had been consigned to oblivion till a few years ago when it was recalled to the recollection of Congress and to the U. S. Senate by some member proposing to send a message of thanks to Marconi for his great invention, whereon some old Congressman arose and told how he had been present when Loomis laid his invention of wireless telegraphy before Congress more than 30 years before that time, and then they looked into the matter and found a full account of it in the records of that time. MARY WASHINGTON.

ONE ON MRS. J.

In her daily altercation with the ice-man over the short measure he delivered, Mrs. Jones one morning rallied him, in half-angry good nature. "I don't see what makes you so stingy with your ice! You know you can't take any of it with you to the next world!"

The man paused with his hand on the door-knob. "Yes, Mrs. Jones," he said, "but you must remember that if you was to see me coming with a block of ice to you in the next world you'd be so glad to get it that you wouldn't have a word to say about short weight!"—April Lippincott's.

York Co., S. C., Feb. 2, '06.

We value the Southern Planter so highly that we do not want to miss a copy.

OAKLAND DAIRY FARM.

Northumberland Co., Va., Mar. 15, '06. I find the Southern Planter very helpful and also very interesting.

S. E. GRAY.

ZENOLEUM VETERINARY ADVISER

A copy of this interesting and well-printed booklet, containing sixty-four pages of valuable advice, prepared by the leading veterinarians in the world for live stock owners and printed at a great expense by the Zenner Disinfectant Company, 33 Lafayette Ave., Detroit, Mich., will be sent to you upon receipt, absolutely free of all cost. This booklet is intensely interesting and you should have a copy. Do not wait a minute. Write for it now.

Fine Horse For Sale Low.

One ladies' horse, a cream-colored mare, six years old, 15 1/2 hands high, weight about 1,000 lbs., rides and drives well, and perfectly reliable in all harness. Compactly made and easy to keep. A beautiful animal.

One dark bay mare, 7 years old, weight 1,200 lbs., a model family horse of superb appearance.

One sorrel mare with flax mane and tail, 7 years old, weight about 1,000 lbs., strikingly stylish in harness, qualities perfect.

One brown horse 7 years old, 16 1/2 hands high, weight about 1,600 pounds, drives nicely, quick and active, and perfectly reliable anywhere.

One chestnut hackney mare, seven years old, weight about 1,200 lbs., of fine action and the appearance.

One pair bay mares, seven and eight years old, weight about 1,300 lbs. each, perfectly reliable in all harness.

One pair chestnut mares, seven and eight years old, weight about 1,150 each, very stylish and handsome drivers.

One pair black mares, six and seven years old, weight about 1,400 lbs. each, qualities perfect.

One pair geldings, sorrel and bay, seven and eight years old, weight about 1,450 each, good workers.

W. M. WATKINS & SON, Saxe, Va.

WEALTH 59579.

RECORD, 2:10. Second in Race in 2:08 1/4. Dark bay or brown horse, 16 hands high; weight, 1,200 lbs. Sired by Gambetta Wilkes, 2:19 1/4, a record living sire, having 134 in the list, of which 14 have records of 2:10 and better. 1 dam Magnolia, dam of Wealth, 2:10; by Norfolk, 3:07, sire of Miss Nelson, 2:14, and son of the renowned Nutwood, 2:18 1/4. 2 dam Beck Collins, dam of Chetwast, 2:30, grand dam of Wealth, 2:10, and Maggie Campbell, 2:24, by Woodburn Hambletonian, 1:57. 3 dam Rebecca, thoroughbred daughter of Blucher, son of Antonio.

This is rich breeding and shows that WEALTH traces to rare ancestral lines; in addition, he has grand size, with beauty and elegance of form. When in training, WEALTH could show a terrific burst of speed, and to red of quarters in thirty seconds (a two minute gait) was easily within his capacity. A race horse on the track, he has made good in the show ring by carrying off the blue ribbon on different occasions. WEALTH traces fine foals and transmits his own desirable qualities with uniformity.

At Lexington, Ky., Feb. 9th, 1906, 356 horses were sold at auction and averaged \$301.75, 17 Gambetta Wilkes Colts were included in sale but averaged \$480, 13 of them averaging \$50.

Fee, \$15 season; \$20 insurance. Address, S. F. CHAPMAN, Clifton Stock Farm, Gordonsville, Va. Or, Col. W. H. Chapman, Richmond, Va.

JACKS, JENNETS and STALLIONS.

Five JACKS A Specialty. 3 to 5 years old; past; we for sale for \$100.00. Send 2c stamp for Catalogue.

W. E. KNIGHT & CO., Nashville, Tenn. R. F. D. 5.

Poland Chinas.

Sunshine and Perfection Blood. Have a fine lot of Early spring pigs now ready for shipment. \$6.00 each, can mate them, no other for breeding. All pigs eligible to regist-y and first class. Bull Plymouth Rock, S. L. Wyandotte and Brown Leghorn Eggs for hatching \$1 for 15.—E. T. ROBINSON, Lexington, Va.

Poland China Pigs

Some fine ones, young sows bred, young boars and pigs. No better breeding in the United States. My herd boars have been sired by J. H. Sanders, Lookmeover. Perfect I Know, Front Perfection, Corrector and High Roller, the greatest prize winners of the breed—my sows have been as carefully selected.

RED POLLED CATTLE. Fine good young bulls. Will sell a few cows and heifers. **ARROWHEAD STOCK FARM,** Charlottesville, Va., SAM'L B. WOODS, Prop'r.

POLAND CHINAS



With the business hams; large, mel low, easy keepers. We did not have half enough fall pigs. Have added to our herd a few choice sows bred to some of the best boars in Ohio. Will be well fixed in spring pigs and have something extra good to offer for April and May delivery. A few bred gilts and some nice young boars for sale, satisfaction guaranteed write your wants. M. B. Turkey eggs \$3. per 12. A. GRAHAM & SONS, Overton, Va.

ORCHARD HILL PURE-BRED

POLAND-CHINAS.

Spring pigs and a yearling Guernsey bull, and two bull calves, also a few White Wyandottes and Buff Orpington cockerels.

F. M. SMITH, Jr.,

R. F. D. No. 4, Charlottesville, Va.

EXTRA FINE

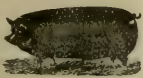
Poland-Chinas.

Lamplighter, Perfection and Sunshine stock. Write for Circular.

C. H. MILLER, R. F. D. 3, Richmond, Va.

Registered P. China 8 Berkshire 8 Whites. Large strain All ages mated not akin, 8 week pigs. Bred sows, Service boars, Guernsey calves, Scotch Collie pups and poultry. Write for prices and free circulars.

P. F. HAMILTON, Cochranville, Chester Co. Pa.



Pigs! Pigs! Pigs!

FROM REG. POLAND CHINAS

My offering this spring is better than ever; finest lot of pigs ever on the farm; not a runt in the lot. If you want a good, growthy pig, write at once for prices and testimonials. I did not have enough last spring. W. B. PAYNE, Edgewood Farm, Crofton, Va.



ESSEX PIGS and Southdown Sheep

I have some choice Essex Sows, 4-8 mos. old, and pigs for spring delivery, also some choice Southdown Ewe lambs for prompt delivery. L. G. JONES, Tobaccoville N. C.



Salt Pond Herd. DUROC JERSEYS.

PAUL J. 21625, son of Oom Paul, head of herd. Sows by Red Rover, Jumbo, Longfield and other noted hogs. A choice lot of Pigs at reasonable prices, ready to ship.

S. A. WHITTAKER, HOPESIDE, VA.

THE GREATEST AMERICAN INDUSTRY—FOOD MANUFACTURE.

According to the latest United States census, the manufacture of foods (excluding liquors) leads all other manufacturing industries, the value of the annual output being \$2,277,702,000, or 17.5 per cent of the total value of the manufactured products of the United States. This is \$500,000,000 greater than the value of the iron and steel industry output. It is a wonderful example of the growth of factory methods in an industry once (less than fifty years ago) to a large extent domestic.

Regarding the expenditure for food, we have but to take into consideration the well-known actual statistical fact that nine-tenth of the people of this and other lands spend from 50 to 65 per cent of their income (estimated for the great majority of American families to be not over \$500 yearly) for food alone, not including its preparation for the table at that. Dr. Edward Atkinson's estimate of \$1.50 per week, spent for food and drink for each adult, is surely moderate enough. This, upon an adult population basis of 60,000,000, gives us a weekly expenditure of \$90,000,000, which in a year would amount to the gigantic total of \$4,680,000,000. It is probably an underestimate to say that \$6,000,000,000 is expended annually for food and drink for our approximate 80,000,000 population. Take one very small item alone. According to an estimate made several years ago by the American Baking Powder Association, we buy 118,500,000 pounds of baking powder per annum, at a cost of \$35,500,000.

It is an amazing fact that although the cost of food makes up so large a part of the cost of living and plays so important a part in economic and sociological problems, the most intelligent people know less concerning the elementary facts of food, its composition, sources, preparation for market, nutritive value, adulteration, misbranding, etc., than of almost any other necessity of life. From "Food Science and the Pure-Food Question," by R. O. Brooks, B. Sc., in the American Monthly Review of Reviews for April.

Northumberland Co., Va., Feb. 15, '06.
The Southern Planter is decidedly the best farmers' paper I know of.
Dr. W. P. SNYDER.

Chowan Co., N. C., Feb. 26, '06.
I think the Southern Planter is the best farm journal I ever read and look forward with much pleasure to each coming issue.
THOS. J. BELL.

Halifax Co., Va., Feb. 20, '06.
I cannot do without the Southern Planter.
J. D. HANKINS.

BERKSHIRES.

Send in your orders for pigs or shoats. We will ship you good individuals, superior in conformation marking and health. We breed for the Farmer who wishes to improve his herd, or start a new one. If you can do so, come and see our stock.

WALNUT GROVE FARM,

W. J. CRAIG, Manager, Shawsville, Va.

BERKSHIRE I offer some exceedingly choice young boars for sale; **BOARS.** by Imported Danesfield Tailor, 76490 and out of Biltmore bred sows. It will be hard to find better or cheaper stock

HENRY WARDEN, Fredericksburg, Va.

BERKSHIRES—

10 to 12 weeks old pigs delivered end of May; 7 and 4 mos. old Boars; trilos, 2 Sows, 1 Boar, not akin; for breeding, see April ad on page 355.

ROBT. HIBBERT,
CHARLOTTESVILLE, VA.

HIGH CLASS

Berkshire Pigs

for sale. Lineal descendants of the great sires, LORD PREMIER, KING LONGFELLOW, BILTMORE'S LONGFELLOW, COLUMBUS, GOV. LEE, SIR JOHN BULL and others as good. Brood Sows of equal breeding. Pedigrees furnished. Prices reasonable. E. F. SOMMERS, Somerset, Va.

2 PURE-BRED

Berkshire Sows.

and 1 Boar, 2 yrs. old, for sale at farmers' prices. For particulars, etc., address,

DILLEMUTH BROS., Blackstone, Va.

Hawksley Farm Berkshires

FROM IMPORTED STOCK. We give the finest breeding and excellent individuals at reasonable prices. You'll get the best selections by writing early.

E. F. ROCK and S. C. B. Leghorn Eggs, \$1 per 17.

J. T. OLIVER, Allen's Level, Va.

RENT HOG ON EARTH!

CHESTER WHITES at farmers' prices; now booking orders for spring delivery.

S. M. WISECARVER, Rustburg, Va.

GALLOWAYS.

All readers of this paper who are interested in this breed of cattle are invited to write me N. S. Hopkins, Gloucester, Va.

THE THREE REDS.

RED POLLED CATTLE

RED Duroc-Jersey Hogs,

Rhode Island Red Fowls.

I have bulls of any age for sale, no finer anywhere. Will sell you Duroc pigs, single or in pairs. Chickens in pairs and trio; also eggs. I sell nothing but first class.

JOHN H. HATFIELD, Harriman, Tenn.

Always mention the Southern Planter when writing advertisers.

REGISTERED

Holstein-Friesian

Cattle; best butter producing strains; purebred JERSEY CATTLE, CHESTER WHITE, BERKSHIRE, JERSEY RED HOGS, and all the LEADING BREEDS OF SHEEP, also DUCKS, POULTRY and TURKEYS.

Write for my prices,
W. R. SELLECK, Huntington Harbor, L. I.

Swift Creek Stock and Dairy Farm

Has for sale a large number of nice young registered A. J. C. C.

JERSEY BULLS And HEIFERS.



Nice better bred in the South. Combining closely the most noted and up-to-date blood in America. Bulls 4 to 6 months old, \$75. Heifers, same age, \$35. POLAND CHINA PIGS, \$5 each. Send check and get what you want.

T. P. BRASWELL, Prop., Battletown, N. C.

THOROUGHBRED

Berkshire Boars, Jersey Bull Calves, Dorset Buck Lambs.

Sire of Calves, FLYING FOG 65456, son of Flying Fog who sold for \$7,500 at the Cooper sale 1902.

All stock in best of condition and guaranteed as represented.

F. T. ENGLISH, Centerville, Md.

SEVERAL

JERSEY COWS

and HEIFERS for sale; also a 2 yr. old Jersey Bull.

A No. 2 Sharples Separator in perfect condition S. C. R. LEONHORN Eggs.

I will make prices to suit you.

RIVER VIEW DAIRY FARM,
C. M. Bass, Prop. Rice Depot, Va.

ELLERSLIE FARM—

Thoroughbred Horses

AND SHORTHORN CATTLE, Pure Southdown Sheep and Berkshire Pigs.

FOR SALE, R. J. HANCOCK & SON,
CHARLOTTEVILLE, VA.

Springwood Short Horns.

Barzain prices on some nice Red, White and Roan Bull Calves, aged 4 to 11 months. These calves are as well bred as any in the State; sired by ROYAL CHIEF 185432, he by IMP. ROYAL STAMP, bred by Mart. I seldom fail to make a sale to those who come and see my stock. WM. T. THRASHER, Springwood, Va.

ROSE DALE HERD....

Aberdeen Angus

Top notch young registered Bulls or specially. A few heifers to offer with bull not skin. We send out none but good individuals. Correspondence and inspection of herd invited. ROSE DALE STOCK FARMS Jefferson, Va.

CLUBBING LIST.

In this list will be found prices on papers, magazines and periodicals which are most called for by our readers. We have club rates with nearly all reputable publications, and will quote them on request:

	Dailies.	With Alone. S. P.
Times-Dispatch, Richmond, Va.	\$6 00	\$6 00
Times-Dispatch (without Sunday)	4 00	4 00
News-Leader, Richmond, Va.	3 00	3 00
The Post, Washington, D. C.	6 00	6 00
The Sun, Baltimore, Md.	3 00	3 40

Thrice a week.

The World, New York....	1 00	1 25
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Weeklies.

Times-Dispatch, Richmond, Va.	1 00	1 25
Central Presbyterian, Richmond, Va.	2 00	2 25
Southern Churchman, Richmond, Va.	2 00	2 25
Harpers Weekly	4 00	4 00
Breeders' Gazette	2 00	1 50
Country Gentleman	1 50	1 75
Hoard's Dairyman	1 00	1 30
Horseman	3 00	3 00

Semi-Monthly.

Kimball's Dairy Farmer...	1 00	75
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Monthlies.

The Century	4 00	4 25
S. Nicholas	3 00	3 25
Lippincott's	2 50	2 50
Harpers Magazine	4 00	4 00
Harpers Bazaar	1 00	1 40
Scribner's	3 00	3 25
American	1 00	1 35
Cosmopolitan	1 00	1 35
Everybody's	1 50	1 75
Munsey	1 00	1 35
The Strand	1 00	1 35
Madame	1 00	1 00
Argosy	1 00	1 35
Review of Reviews	3 00	3 00
Field and Stream	1 50	1 50
Women's Home Companion	1 00	1 25
Reliable Poultry Journal..	50	75
Industrious Hen	50	70
Poultry Success	1 00	75
Blodded Success	50	65
Successful Farming	1 00	60
Southern Fruit Grower	50	85
Shepherd's Criterion	50	75
Commercial Poultry	50	75

When two or more publications are wanted, the price for them can be found by deducting 50 cents from "price with Southern Planter."

We cannot under any circumstances furnish sample copies of other publications.

We will cheerfully quote our best price on any list of publications submitted to us.

College of Agriculture

... AND ...

Experiment Station, BLACKSBURG, VIRGINIA.

BEEF CATTLE

We can offer some choice bull calves of Angus and Shorthorn breeds for spring delivery. These are especially good individuals, and of good breeding.

DAIRY CATTLE

Bull calves of Holstein and Guernsey breeds for sale for immediate delivery. We can furnish yearly records for the dams of these calves, both of milk and butter. Prices reasonable, considering the breeding of the calves.

BERKSHIRE PIGS

A few Berkshire pigs of both sexes, for immediate delivery.
For prices and other information, apply to
JOHN R. FAIN, Agriculturist.

GROVE FARM

R. F. D. Cockeysville, Md.
First Prize Herd
Guernseys

at Timonium and Hagerstown, Maryland, (only place HERD Shown).

BULLS ONLY FOR SALE

OUR BERKSHIRES.

were unbeaten at Timonium (Baltimore County), York Pa., and Hagerstown, Maryland, the only places shown in 1905. PIGS OF BOTH SEXES for sale.
C. & P. Telephone and Telegraph, 431
Lutherville, Md.

JAS. McK. MERRYMAN.

AYRSHIRE BULLS.

We will sell a registered AYRSHIRE BULL CALF, at shipping age, for \$25 to parties in Virginia, Maryland or D. C. who have herds of grade Dairy Cows. The Ayrshire cross on grade Jersey, Shorthorn or local stock, greatly increases milk production.

3 calves, ranging in age from 18 down to 1 month, now ready; will deliver according to age as orders come in. Better order soon and get advantage of age.—MEL-ROSE FARM, Casanova, Va.

Make Your Idle Money Earn You Interest

Write the FIRST NATIONAL BANK of RICHMOND, VIRGINIA for information concerning its certificate of deposit, so arranged that one per cent. may be collected every FOUR MONTHS through your nearest bank or store.

Our experience proves this former savings to be the most satisfactory plan yet devised for deposits of \$100.00 or more.

Our Capital and Surplus is
ONE MILLION DOLLARS.

JOHN B. PURCELL, President.
JNO. M. MILLER, Jr., Vice-Pres. & Cashier.
CHAS. R. BURNETT, Assistant Cashier.
J. C. JOPLIN, Assistant Cashier.

Ann Arundel Co., Md., Feb. 14, '06.
I consider the Southern Planter one of the very best of its class.

J. S. SULLIVAN.

A PURE-BRED

DORSET RAM

4 yrs. old, for sale or exchange. He was purchased from the V. F. I. flock. OAK VIEW STOCK FARM, DR. A. T. FINCH, Chase City, Va.

REDLANDS FARM

Shropshire Sheep

1 registered Shropshire Buck, very fine.
6 pure bred Shropshire yearling Bucks, also very fine. Address, AARON SEAY, Manager, Carter's Bridge, Albemarle Co., Va.



Edgewood Stock Farm.

DORSETS.

Ram lambs for June shipment. If you are in the lamb business you need one.
J. D. Arbuckle and Sons,
Greenbrier Co.,
Maxwellton, W. Va.

DORSET SHEEP

We purchased at the World's Fair, at St. Louis, a ram that was second at this show. We now have some of his lambs, and they are the best that we ever raised, as good as we ever saw. There are dock headers among them that would please the most exacting.—J. E. WING & BROS., Mechanicsburg, O.

HEREFORD CATTLE.

Registered young cattle of BEST strains for sale at Farmers' prices. Will sell very cheap, several young bulls of fine individuality and best breeding. Also high grades of both sexes at beef prices.—WM. C. STUBBS, Valley Front Farm, Sassafras, Gloucester Co., Va.

REGISTERED

Hereford Bull

for sale or exchange. For particulars, apply to W. J. McCANDLESS, Brandy Station, Va.

REGISTERED

Angus Calves.**Large Toulouse Geese.**

J. P. THOMPSON, Orange, Va.

MANY JAMESTOWNS.

SPECIAL INVITATION EXTENDED
THEIR CITIZENS TO BE PRES-
ENT ON JAMESTOWN DAY.

Norfolk, Va., On the 13th day of May, 1907, on the waters of Hampton Roads and on its shores in Norfolk county, the three hundredth anniversary of the first permanent settlement of English-speaking people in America will be memorialized by the Jamestown Exposition.

This date will be Jamestown Day. There were Spanish settlers in America before Jamestown, and the French had established some villages along the Canadian coast, but the palisades on Powhatan's River which were named after the reigning monarch of England formed the first village in the western world where English was spoken.

The descendants of the original settlers are scattered throughout the United States.

Recently when the Daughters of the American Revolution visited Jamestown Island, it was found that not less than fifteen visiting members of the society traced their ancestry directly to some inhabitant of Jamestown.

The Exposition management have discovered many Jamestowners and have invited them to participate in the celebration on the 13th day of May.

Recently it has been suggested that inhabitants of other Jamestowns and descendants of past inhabitants should be included in the general invitation, and, ramifying this thought, take in the people of all the cities named after James the First.

The Postal Guide of the United States gives Jamestowns in the following States: Alabama, Arkansas, California, Colorado, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Missouri, North Carolina, North Dakota, Ohio, Pennsylvania, Rhode Island, Tennessee and Wisconsin, besides Virginia's settlement.

Three of these Jamestowns are county seats; one the capital of Russell county, Kentucky; another of Stutsman county, North Dakota; and the third of Fentress county, Tennessee.

Jamestown, New York, is the largest of the coterie with a population of about 29,000; Virginia is the smallest, having only ten inhabitants.

There are seven postoffices called James, three Jamesburgs, one James City, one James Creek, one James Island, two Jamesports, one James River, one James' Store, five Jamesvilles.

Both of the Jamesports are fairly sizeable places and three of the Jamesvilles have money order stations and are places of considerable consequence.

Twenty-five States have within their borders one or more towns named after James the First, who, if he could return to earth, would probably perpetrate some wonderful epigram on the subject, since while living he was known as "the wisest fool in Christendom."

Kent Co., Md., Mar. 14, '06.

I consider the Southern Planter decidedly the best farm journal for this latitude and always read it with interest and profit.

JAS. A. PEARCE.

Buncombe Co., N. C., Mar. 13, '06.

The Southern Planter continues to be the best agricultural paper published in the United States

Rev. L. T. HPTT.

Giles Co., Va., Mar 17, '06.

I cannot be without your valuable paper.
CHAS. F. STRALEY.

WANT ADS.

Rate 2 cents per word. Cash with order. Initials and figures count as one word. 25 cents minimum charge.

THE SOUTH SIDE STRAWBERRY CRATES and Baskets. Send for Catalogue and prices. South Side Mfg. Co., Petersburg, Va.

WILL SELL ON AND AFTER JUNE 1ST, 1906, 18 Shropshire and Dorset Ewes and 1 Hampshire Buck. All in good shape; ewes lambed before March 1st this year. J. A. Spears, Dry Bridge, Va.

SOME CHOICE BERKSHIRE BOARS ready for service for sale; also March pigs. Beauties. L. B. Johnson, R. F. D. 4, Charlottesville, Va.

MCCORMICK SHREDDER AND CORN Harvester for sale; in use 2 years on 25 acre crop. W. A. CONNELL, Inez, N. C.

SPLENDID YOUNG REGISTERED ANGUS Bull for sale, at \$50. OVERBROOK FARM, Owings Mills, Md.

FOR SALE; SEVERAL UNUSUALLY FINE pigs, out of the best registered Berkshire Stock, at Farmer's prices. TUCKAHOE FARM, Box 360, Richmond, Va.

FOR SALE: 1 LARGE, FIRST-CLASS, 3-YR.-old Berkshire Sow registered in pig to Registered Berkshire Boar; prolific breeder, cheap, good reason for selling. DALKETH STOCK FARM, South Boston, Halifax Co., Va.

THE SOUTH SIDE LETTUCE AND BEAN Baskets, Nos. 25, 26 and 27; send for Catalogues and prices. South Side Mfg. Co., Petersburg, Va.

"BLUE RINGLET" BARRED ROCKS ARE the prettiest and most profitable fowls you can raise. Try them, and if not satisfactory, you can have your money back. Eggs that hatch, 15 for \$1, or \$250 per 100. STAR POULTRY YARDS, 321 Stockton St., Manchester, Va.

LARGE YORKSHIRE PIGS FOR SALE; prices low; good breeding. J. D. THOMAS, Round Hill, Va.

FOR SALE: PURE-BRED HOLSTEIN BULL Calv., 10 months old, a beauty; \$25 if taken now. JOHN CRAMER, South Boston, Va.

WANTED: WORKING FARMER, WHO can look after dairy and 700 acre farm. Address Worker, care of Southern Planter.

HOMER PIGEONS FOR SALE: A FEW pair Imported Belgium Homers, guaranteed mated, \$2 a pair, best in America; also Peawfowls, Leghorn Eggs. J. B. WADDILL, Tate Springs, Tenn.

YELLOW SOY BEAN SEED FOR SALE or will exchange for cow peas. R. W. WATSON, Petersburg, Va.

FORTY SHEEP FOR SALE: 30 LAMBS, by Registered Buck; 15 Ewes, pure bred. JOHN P. SNEAD, Jr., Holmhead, Va.

TWO PURE BRED FOX HOUNDS, 11 months old, for sale. A. MEADOR, Route 3, Cumberland, Va.

WANTED: A SECOND HAND GRAIN drill, in good order. Write, stating price and maker's name, to J. care of Southern Planter.

WANTED—MARRIED WORKING FARMER understanding trucking—drinking men must not apply. P. O. Box 250 Richmond, Va.

HASTINGS POTATO FARMS

Not over fifteen years ago Hastings was an unknown wayside station half way between the ancient city of St. Augustine and East Palatka, on the Florida East Coast Railway. Outside of the station, with its water tank and a few negro cabins, nothing could be seen but endless stretches of state-ly pine woods. Today it is a thriving and fast-growing community. The negro cabins have given way to stores and residences. The pine woods are no more; but in their place, as far as the eye can reach, stretches farm after farm of some of the finest potatoes raised in this country. Standing on the upper piazza of a house in the village, the scene is impressive at this season of the year. Extending from one's very feet (for even the yards of Hastings are planted in potatoes, as the land is too precious to waste) are fields after fields of the richest dark-green potato plants, waving their glossy leaves in the warm sunlight. It puts one in mind of an immense rich, green carpet, as it covers the earth for miles around. Hastings today has 2,200 acres in potatoes; 600 more acres are scattered throughout the smaller settlements, all within a few miles. This makes a total of 2,800 acres for Hastings and vicinity. They are all called Hastings potatoes, and that name is as well known today as any in the market. The average crop this year will yield forty barrels to the acre. This figure, multiplied by the acreage 2,800, gives a total of 112,000 barrels. Frost has damaged the crop very little—in some places about 10 per cent—while in others, the effect is hardly perceptible. But for this slight drawback, the yield would have been close to 125,000 barrels. Prices are being held up to uniform standard; almost every farmer wants \$3.75 a barrel f. o. b. Hastings. A conservative estimate puts the whole crop at \$3.25 a barrel net. This will mean that some \$359,000 will shortly pass into the pockets of the farmers of Hastings and vicinity. This, of course, is not all profit; but if we take the cost of one average acre, it will give an idea of the money there is in potatoes:

1,700 lbs. fertilizer, at \$28 ton. . . \$23 80
 8 1/2 barrels seed potatoes, at \$3 per barrel. 10 50
 Planting, cultivating and harvesting. 15 70

Total \$50 00

Taking the average of forty barrels at \$3.25, we have \$130; \$50 from this leaves a clear \$80 per acre profit. When we consider that many of the farms are from 40 to 120 acres in extent, the figures run up in the thousands.

Potatoes are not the only source of profit, as three different crops are planted each year. Some plant

TULEYRIES FARM

HEREFORDS

Having purchased the entire herd of celebrated Rosemont Herefords from C. E. Clapp, Esq., adding same to original herd purchased by W. G. Conrad, Esq., I offer for sale the following bulls, retaining for my own cows the famous Sire Acrobat 68460 and Christmas Beau Donald 183391, whose sire was Beau Donald 58996. Dam Carnation 11th, 123146.

				Calved.		Sire.		Dam.
1.	Duke	of Rosemont	4th	20517	Sept.	2, '04	Acrobat 68460	Gloria Dale (136548)
2.	"	"	5th	20513	Dec.	7, '04	"	Carnation 71832
3.	"	"	6th	22415	May	7, '05	"	Viola 91499
4.	"	"	7th	23373	Sept.	21, '05	"	Fern 152186
5.	"	"	8th	23373	Sept.	28, '05	"	Angella 140021
6.	"	"	9th		Oct.	10, '05	"	Gloria Dale (1136548)
7.	"	"	10th		Oct.	16, '05	"	Castalia Nymph 8th (159145)
8.	"	"	11th		Nov.	8, '05	"	Castalia Nymph 7th (138858)
9.	"	"	12th		Dec.	12, '05	"	Erica Marchon (131308)
10.	"	"	13th	reg.	Dec.	14, '05	"	Carnation 71832
11.	"	"	14th	Bein	Dec.	17, '05	"	Polly 7th 78661
12.	"	"	15th		Dec.	30, '05	Christmas Beau Donald (138552)	Butterfly Imp.
13.	Marquis of Salisbury				Dec.	16, '01	Imported Salisbury 75028	Shadland Amber 63047
14.	Shenandoah Salisbury	212260	Feb.	4, '05	Marquis Salisbury			Carnation 11th (123146)
15.	Rosemont Salisbury	212249	March	21, '05	16th	"	"	Kitty Clover (121243)
16.	Donald Salisbury	224111	June	25, '05	16th	"	"	Beau Donald 31st (109871)
17.	Benison's Protector 169752	April	4, 1903	Protector 117878				Benison 78826
Also for sale pure-bred registered								
HOLSTEINS,								
BERKSHIRES,								
SHROPSHIRE,								
H. NOEL GIBSON, Live Stock Manager.								
GRAHAM F. BLANDY, Owner, Tuleyries Farm, White Post, Clarke County, Va.								

Also for sale pure-bred registered

HOLSTEINS,
BERKSHIRES,
SHROPSHIRE.

H. NOEL GIBSON, Live Stock Manager.

GRAHAM F. BLANDY, Owner, Tuleyries Farm, White Post, Clarke County, Va.

ELKTON STOCK FARM.

BREEDERS OF PURE BRED HEREFORD CATTLE PERCHERON HORSES BERKSHIRE HOGS.

Stock for sale at all times at reasonable prices

All statements and representations guaranteed.

FOREST DEPOT, - - - VIRGINIA.



ACTOR 26th, 186258

INGLESIDE HEREFORDS

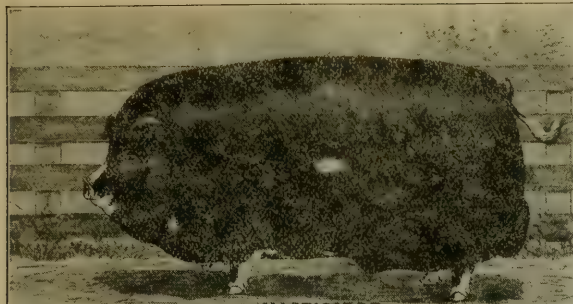
Owned by S. W. Anderson, Blaker Mills, Greenbrier county, W. Va.

A choice lot of BULLS, COWS, and HEIFERS for sale. Also a few POLLED HEREFORD BULLS recorded in the National Polled Hereford Records. Write for catalogue and prices. Farm near Alderson, W. Va., on the C. & O. R. R. Telegraph and Telephone office, Alderson W. Va.

HEREFORDS ENTIRE DORSETS.

Sold to settle Estate.

H. ARMSTRONG, Lantz Mills, Va.



MASTICATOR

THIS \$850. PIG EATS

3 FEEDS FOR ONE CENT**YOUR SOWS WILL RAISE MORE PIGS.**

INTERNATIONAL STOCK FOOD CO., MINNEAPOLIS, MINN.

LIBERTY, MISSOURI.

GENTLEMEN:—I have seven Brood Sows that pigged last week, all in four days, sixty-four fine big pigs. Have fed these sows "International Stock Food" every day. Also fed it to sixty head of steers which are doing well. One of my neighbor's hogs had the cholera the first of the year. There was only a wire fence between his hogs and mine. I fed my hogs "International Stock Food" every day. He lost all his hogs except three out of fifty. I am about ready to purchase another hundred pounds of "International Stock Food" as I feed it every day.

Yours truly,

W. B. ELLIOTT.

"International Stock Food" purifies the blood, cures disease, tones up and strengthens the system and greatly aids digestion and assimilation.

Did You Ever Sell a 7 Months Old Pig for \$850.? AND ONE LITTER FOR \$1,657.50?

W. G. CAMFIELD & SON, Breeders of Pure Bred POLAND CHINA HOGS.

COWDEN, ILLINOIS, JAN. 16, 1906.

INTERNATIONAL STOCK FOOD CO.,
MINNEAPOLIS, MINN.

GENTLEMEN:—I want to tell you about a fine litter of pigs that I raised last year. As I had a good litter of pigs out of E. L. Delightful I wanted them to do extra well, so I bought one hundred pounds of "International Stock Food" and fed it to them every day up to sale time when they were seven months old. From this litter came Masticator, the highest priced pig that was ever sold at auction at that age. The Goodrich Stock Farm at Eldon, Mo., paid \$850.00 cash for this seven months old pig, which broke all sale records for this age. The entire litter brought \$1657.50. I will certainly continue to feed "International Stock Food" because it is reliable and makes us money. I will soon want another supply.

Yours truly,

W. G. CAMFIELD & SON.

DAN PATCH 1:55 1/4 IN 6 BRILLIANT COLORS

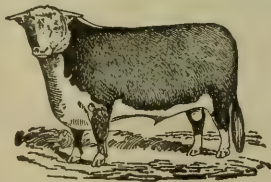
WITH POSTAGE PREPAID MAILED FREE

We Have A Beautiful, Six Color Lithograph of Our World Champion Stallion Dan Patch 1:55 1/4. It Was Made From Photograph And Shows Dan Hitched To Sulky And Pacing His Fastest Clip. It Also Gives All Of His World Records. This Is A Splendid Horse Picture For Framing. It Is The Most Life Like Picture Ever Taken And Shows Dan Flying Through The Air With Every Foot Off Of The Ground. We Will Mail You One Copy Free, Postage Prepaid, If You Write Us And State How Much Live Stock You Own And Name This Paper.

Address INTERNATIONAL STOCK FOOD CO., Minneapolis, Minnesota, U. S. A.

sugarcane, but the majority corn for a second crop and then ground peas. This last is for fertilizing the ground and renewing the nitrogen in the soil. Corn yields about 30 bushels per acre and brings about 70 cents a bushel, making another \$21 per acre to add to profit; and it is nearly all profit, as the Hastings farmer figures his year's labor in with the potato crop. Sugarcane gives about 350 gallons of syrup to the acre, and sells for 50 cents a gallon when handled by the farmer, who sells nearly all of it to the turpentine camps. The cost of handling this crop and the condition it leaves the ground in reduces the profit materially. The cane roots take two years to rot, making potato raising on the same ground very hard work.

Potato farms in Hastings today are worth from \$90 to \$150 per acre. The very same land not so very long ago when covered with pine forests did not sell for over \$5 an acre. Many of the most successful men there today started in with a few acres which



Grand Champion Prince Rupert, No. 76539.

HEREFORD CATTLE

HIGH CLASS HERD.

PRICES VERY REASONABLE.

EDWARD G. BUTLER, "ANNEFIELD FARMS,"

Berryville, Va.

Best English and American strain

BERKSHIRE HOGS.

Where to Sell Your WOOL

We are the Leading Dealers in the Wool Trade in Virginia.

HIGHEST MARKET PRICE PAID, and no Commission charged, only freight charges deducted. SACKS FURNISHED FREE. Checks remitted promptly. Correspond with us when ready to sell.

WALLERSTEIN PRODUCE CO., 19 and 21 S. 13th St., Richmond, Va.

References: American National Bank and Richmond merchants generally.

they cleared in the pine woods. To-day they own farms of eighty and a hundred acres. Potatoes did it all.

Planting commences January 16th, and lasts till about February 10th. The harvest is from April 10th or 20th to the latter part of May. Some of the early diggings have brought as high as \$6 a barrel. The seed potatoes have to be raised in the North; Maine and New York furnish most of the seed. The most successful combination in fertilizer so far found is cotton seed meal 825 lbs., acid phosphate 825 lbs. and potash 350 lbs. to the ton. Most of the farmers mix it themselves and put it up in 100-lb sacks. In this way they get the least waste in working the negro hands. At the end of each 40-rod-long row a sack is placed, and the men working the fertilizer machines know that is the exact amount and get so they distribute evenly. On an eighty-acre farm the amount of fertilizer won't vary two hundred pounds a year in this way of distributing. Plants are set out 3 feet 6 inches apart, and in some places in the rows the leaves touch each other, so big the plants have grown.

In many places orange trees have been set out in the potatoe fields, and judging from the bloom, they will bear heavily next year. The Wetmore orange grove has twelve acres in orange trees, and five acres of the same under cover. This year they have shipped close on to 9,000 boxes of oranges.

The land around Hastings is seven feet above tide water, is twenty miles from the ocean and three from the St. John's river. Good roads are fast being built, and the whole country around bears an air of prosperity—and it is all potatoes.

M. B. CLAUSSEN.

Baltimore Co., Md., Feb. 22, '06.
I think the Southern Planter the best farm journal published.

Dr. L. G. SMART.

New Sharon, Iowa, Feb. 19, '06.
I can truthfully say that the Southern Planter is the leading Agricultural Journal of the South.

J. A. SMITH.

Princess Anne Co., Va., Mar. 2, '06.
I find the Southern Planter interesting as well as profitable.

J. J. SPRATT.

Shenandoah Co., Va., Mar. 11, '06.
I have been taking the Southern Planter for many years and like it very much.

I. S. DAVISON.

Campbell Co., Va., Feb. 24, '06.
The Southern Planter is easily worth ten dollars a year to every farmer who will study its teachings and practice them on his farm.

THOS. FAUNTLEROY.

Jno. S. Funk, Glen Farm.



IMPORTER AND BREEDER
OF

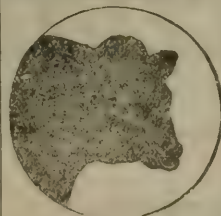
giste red Polled Durham
Cattle or Hornless Short-
horns, Poland-China Hogs,
and Southdown Sheep.

I do not want my customers and others to think I am out of business because my ad has not been in the Southern Planter for some months. Orders have come in so strong that my stock has been sold before old enough to ship, especially my Polled-Durhams. I am now ready to take orders for Cattle, Hogs and Sheep.
Address R. F. D. 7 Harri-
sonburg, Va.

SUNNY HOME HERD —OF— Aberdeen Angus Cattle.

The two bulls at the head of this herd (Baron Roseboy 57666 and Jester 60071), are as well bred as any in America. Baron Roseboy is a grandson on both sire and dam's side of Heather Lad 2nd, the greatest stock bull of the Angus breed ever in America. Jester is a grandson on sire's side of Equestrian, the greatest bull Scotland has produced in many a day. Jester's dam Jit 12th, is the best female in the great "Grandview" herd and is a granddaughter of the famous Bushman—by Young Viscount—and a great granddaughter of Paris 1166, the bull who turned the eyes of the stock growing world toward the Angus breed at the Paris Exposition. Well sold sons of these two great bulls at prices within the reach of every stockman.
Farm at Fitzgerald, N. C.

A. L. FRENCH, Prop.,
R. F. D. 2, Byrdville, Va.



The Delaware Herd of

ROYAL ANGUS CATTLE

is not surpassed either in breeding or individual animals by any herd in the East. At the head of our herd is

PRINCE BARBARA, 68604.

the son of the great \$9,100 Prince Ito. Females of equally choice breeding. Write your wants. Remember, we take personal care of our cattle; keep as high priced help, incur no expense of exhibiting all of which enables us to offer stock at equitable prices. Send for pamphlet, 15 Bulls from 2 to 15 months old for sale.

MYER & SON, Prop.

Bridgeville, Del.

PALMETTO FARMS.

Red Polled Cattle. Berkshire Hogs. Angora Goats.

We are offering 2-year-old Red Polled Bulls, of superior beef form, from heavy milking dams. Combine beef with milk, and secure a double profit. Fine individuals, of fancy breeding. Red Polls are hornless. We are pricing them low to make quick sale. Nothing to offer in Berkshires and Angoras before fall.

PALMETTO FARMS, Aiken, S. C.

ORGANIZED 1832.

ASSETS. \$1,134,647.11

Virginia Fire and Marine

Insurance Company of Richmond, Va.,
Insures Against Fire and Lightning.

All descriptions of property in country and town, private or public, insured at fair rates, on Accommodating terms.
AGENCIES IN EVERY TOWN AND COUNTY.

W. H. PALMER President.

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W. H. McCarty, Secretary



Was there ever a more magnificent array of famous producing stallions and mares in one pedigree?

SUPREMACY 13323

Record 2.23.
 Trial 2.17.
 Blood brother to Maj. Delmar...1.59% (champion gelding)
 2.07 high wheel sulky
 World's record 2.01% without wind shield
 Gransons Electioneer 125 have sired:
 Tommy Britton 2.06%
 Boralma2.07
 Charlie Herr.....2.07
 Annie Lee, p.....2.07%
 Carmine, p.....2.07%
 B. Fitzsimmons, p. 2.07%
 Pan Michael, p. 2.07%
 Alpha W., p.....2.08
 Silver Chimes, p. 2.08%
 Jasper Ayers.....2.09
 Col. Loomis, p. 2.09%
 Rowland2.09%
 Promise2.10
 etc., etc.

BELL BOY 5350

(Record 2.19%)
 sire of
 Princess Belle, 2.17%
 and 15 others in 2.30, grandsire of Tommy Britton 2.06%
 Full brother to Chimes2.09%
 sire of
 The Abbott.....2.03%
 62 others in 2.30
 Bow Bells.....2.19%
 Billy Andrews, p. 2.06%
 24 others in 2.30
 Belsire 2.18 sire of
 Furi, p. 2.....2.15%
 St. Bel 2.24, sire of
 Lynne Belle 2.10%
 &c.

SUSAN

dam of
 Supremacy (5) 2.29
 full sister to
 Allen Lowe, p. 2.12
 Alcamedia, p. 2.19%
 Alcamedia (4) 2.30
 half sister to
 Auctioneer the sire of 3 in 2.30 or better
 Alfaton the sire of 2 in 2.30 or better.
 De Barry2.19
 &c.

SUPREMACY

(Blood Brother to Major Delmar)

This grand horse—one of the best bred trotting stallions of the world—is now the property of Lewisiana Farm. None of his famous ancestors, Mambrino, Abdallah, George Wilkes, Hambeltonian, Alcantara or Electioneer, were handsemer animals of surer foal getters than he.

He is a bright mahogany bay, 15 3 hands, weight 1,200. His sire, Bell Boy, sold for \$2,000 as a 2 year-old. Lewisiana Farm is breeding all of its mares to him. His colts are all beauties. Applications will be booked for a limited number of choicely bred mares. SERVICE FEE, \$100

ELECTIONEER 25

Arion, 4.....2.07%
 sire of
 Sunol2.08%
 Palo Alto.....2.08%
 16 others, Dams of
 Klotzab, p. 2.20%
 Dolly Dillon.....2.07
 Crafty, p.....2.09%
 94 others in 2.30

BEAUTIFUL BELLS

Record 2.29%
 dam of
 Bellefour2.12%
 Bow Bells.....2.19%
 Bull Boy.....2.19%
 Hinda Rose 3.....2.19%
 Palo Alto Belle 2.22%
 6 others in 2.30
 ALCANTRA 739
 Record 2.23, sire of
 Sir Alcantara, p. 2.04%
 Moth Miller, p. 2.07
 144 others, Dams of
 Heir-at-Law, p. 2.05%
 Charley Hoyt, p. 2.06%
 55 others in 2.30

SUSIE

dam of
 Allen Lowe, p. 2.12
 De Barry.....2.19%
 Alcamedia, p. 2.19%
 also 3 producing sons

HAMBLETONIAN 10

sire of
 Dexter2.17%
 Nettie2.18
 38 others in 2.30
 GREEN MT. MAID
 dam of
 Elaine2.20
 Prospero2.20
 7 others in 2.30
 THE MOORE 870
 sire of
 Sultan2.24
 Del Sur2.24
 4 others in 2.30

MUNNEIAHA

dam of
 Baton Rose.....2.20%
 Beautiful Bells 2.29%
 6 others in 2.30
 GEO WILKES 519
 (2.22) sire of
 Harry Wilkes 2.13%
 Brincoli Wilkes 2.14%
 82 others in 2.30
 ALMA MATER
 dam of
 Allandorf (sire) 2.19%
 Alycone (sire) 2.27
 7 others in 2.30
 HAPPY MEDIUM 400
 sire of dams of
 Sister Alice.....2.10%
 Stam B.....2.11%
 100 others in 2.30

COUNTY HOUSE

MARE
 dam of
 Nettie2.18
 and grandam of 6 standard performers

ABDALLAH 1 by Mambrino sire of dam of Goldsmith Maid 2.14
 CHARLES KENTY ARE grandam of Bashaw 50, sire of 17 in 2.30

HARRY CLAY 45, Record 2.29, Sire of dam of Harrietta, 2.08%, etc.
 SHANGHAI MARY grandam of 9 standard performers

CLAY PILOT 93 by C. M. Clay, 20 Sire of 3 in 2.30 or better

BELLE OF WABASH

Sire of The Moore, sire as noted

STEVEN'S BALL CHIEF
 sire of the great mare Minnehaha
 NETTIE CLAY by C. M. Clay 23 grandam of 8 in 2.30 or better

HAMBLETONIAN 10 sire of grandam of Kremlin in 2.07%
 DOLLY SPANKER
 dam of George Wilkes 2.22, etc.

MAMBRINO PATCHEN 58 sire of dam of Ralph Wilkes 2.08%, etc.
 ESTABLLA by Imp. Australian
 dam of Alma Mater, dam of 8 2.30

HAMBLETONIAN 10
 sire of Dexter 2.17% and 12 others, etc.
 PRINCESS, Record 2.30
 dam of sire Nancy Hanks 2.04, etc.

AMERICAN STAR 14 sire of dam of Gay 2.02% and 12 others
 GRANDAM NETTIE 2.18
 grandam of 3 producing dams.

Our aim is to keep only the best Horses, Cattle, Hogs, or Farm Live Stock.
 Choice Jersey and Polled Angus Cattle. Best Berkshire, Poland China and Jersey Red Hogs

LEWISIANA FARM, Fredericksburg, Va.

THE NEED FOR CONTINUANCE IN WELL DOING.

Now that the coal strike is upon us, it may be interesting to the people of the United States to know that they spent approximately \$1,500,000,000 last year for fuel for the production of power, light, and heat. With the steady increase in the number of our manufacturing industries, our need for fuel is not likely to diminish as the years go by, nor is it probable that our annual expenditure for the material with which to produce power, light and heat will become less. In view of our accumulating needs and the growing difficulty we may have in meeting them, the statements recently made by government experts and referred to the Senate Committee on the Geological Survey are such as may well make every patriot pause.

These statements are to the effect

BILTMORE FARMS

R. F. D. No. 2, Biltmore, N. C.

THE HIGHEST STANDARD

JERSEY BULL CALVES

BOTH AMERICAN AND ISLAND TYPE.

Also young Berkshire Boars and Sows

of the best conformation and breeding for sale at all times.

Write for prices and descriptions of what you want.

Address

BILTMORE FARMS,

R. F. D. No. 2, Biltmore, N. C.

The South Side

HUCK, AND PEACH BASKETS,
 South Side M'fg. Co.,
 Petersburg, Va.

that the losses in the utilization of fuel for the development of power, light and heat under existing conditions are so great that in a ton of coal consumed in an ordinary manufacturing plant less than 5 per cent of the total energy is available for the actual work of manufacturing; that in an ordinary locomotive only from 3 to 5 per cent of the fuel energy is obtained for pulling the train; that in our houses ordinarily not more than one-seventh of 1 per cent of the fuel energy is actually transformed into electric light; that gases from the blast furnaces of the country are now lost in the atmosphere that would yield continuously, if properly utilized, more than 2,500,000 horsepower; and that by-products might be saved from the 40,000,000 tons of coal which we now convert into coke that would have an aggregate yearly value much greater than that of the coke itself. These by-products would include ammonium sulphate sufficient to fertilize our farms, cresote for the preservation of our timber, and pitch enough for bricketting our slack coal, roofing our houses and repairing some of our roads.

How appalling that such waste should continue after we know that it exists! Unfortunately, it is not always clear even to those who best understand the nature and uses of coal how much economies may be effected. No methods, for instance, are known by which more than one-sixth of the nitrogen in coal can be saved in the manufacture of coke. There is no subject touching the welfare of the human race on which research is more needed than economy in the use of fuel.

The results of the fuel investigations conducted at St. Louis during the Louisiana Purchase Exposition by members of the United States Geological Survey are so encouraging to both producers and consumers of coal that the nation may well take to heart the continuance of those investigations. Persons desirous of knowing more about this work should apply to the Director of the United States Geological Survey for Professional Paper No. 48. In comparison with the immense sum annually expended for fuels, the amount of money necessary to carry on this work for several years seems a mere trifle, especially when the magnitude of the interests involved is considered. The recommendations of the Director of the United States Geological Survey that the sum of \$250,000 be appropriated by Congress for the investigation of the coals, lignites, and other fuel substances of the United States during the fiscal year ending June 30, 1907, should therefore meet with the enthusiastic approval of the whole people, since it is a matter that concerns every citizen.

It should not be forgotten that work of this kind is necessarily expensive. It must be done with the great-

MONTVIEW JERSEYS.

We have for sale, at reasonable prices, Bull calves sired by our prize-winning Imported Marett's Flying Fox and also one masculine son of the famous Forfarshire.

MOUNTVIEW BERKSHIRES.

MANOR FAITHFUL, pronounced by Geo. F. Weston, Superintendent of Biltmore Farms, THE BEST BOAR HE COULD FIND IN ENGLAND. Sold for \$615, and weighed 1100 pounds in show condition. We have now pigs by this great boar out of splendidly bred sows. Only a limited number will be sold.

We also have a fine litter from an imported sow by BARON PREMIER 3RD, the boar that was first prize-winner in his class at the St. Louis Exposition.

Montview Stock Farm,

CARTER GLASS, Owner.

Box 513, Lynchburg, Va.

C. L. STAHL, Manager,

RED POLLED CATTLE.

One Registered Bull and eleven Registered Cows, and also a Junior Herd, one Bull and four Heifers. We also offer a few calves entitled to registration.

We have a few **BERKSHIRE SOWS** due to farrow in March and April.

EGGS FOR HATCHING;

BRONZE TURKEYS, PEKIN DUCKS, B. P. ROCKS, BROWN LEGHORNS, TOULOUSE GEESE ALSO B. P. ROCK COCKERELS.

M. B. ROWE & Co., - - Fredericksburg, Virginia.

EVERGREEN FARMS

Fancy Bred Stock at Reasonable Prices.

REGISTERED JERSEY CATTLE.

REGISTERED BERKSHIRE BOARS ready for service.

S. C. B. LEGHORN EGGS from choice birds. 75c per 15.

W. B. GATES, Prop.

Rice Dep. Prince Edward County, Virginia.

BARGAINS IN FARM LANDS.

Lawton, Comanche County, Oklahoma.

If you want to live long and be prosperous, this is the Country for you to come to, as we have the best water and the finest climate and the best agricultural lands in the Southwest; all kinds of vegetables, fruits and tame grasses do well here; in fact, this is the best farming and stockraising country in the United States. Our springs are early and winters short and mild, and you can plow here 10 months in the year in your shirt sleeves. For further information, call on or write to W. R. SANNER & COMPANY, 322 Third St., Lawton, Comanche County, Okla.



Lightning Portable WAGON Scale and STOCK Scale

All above ground. Steel frame, only 8 inches high. Octagon levers. Tool steel bearings. Compound beam. Most accurate and durable. Write for catalogue and price.

KANSAS CITY HAY PRESS COMPANY, 162 Mill Street, Kansas City, Mo.

The South Side

STRAWBERRY BASKETS AND CRATES.

South Side M'fg. Co., Petersburg Va.

est possible care on a scale sufficiently large to command public attention. Every test must be extended over a certain period of from 3 to 6 days, and many of them over a longer period, during which time it is necessary to employ 2 or 3 shifts of men so the work may be constantly under supervision. Not only must the experts in charge of the work be men of the highest training and experience, but even the ordinary workmen must be selected with care and must be given such compensation as will make them willing to render proper service. Finally, the equipment must not only be the best obtainable, but it must be kept accurately adjusted and must be in duplicate so that there need be no delays in case of accident to any part of the machinery.

IRON AGE POTATO MACHINERY.

Our long-time customers, the Bateman Manufacturing Company, Box 167-B, Grenloch, N. J., are making a special drive this season with their well-known Iron Age Potato Machinery. This line consists of Improved Robbins Potato Planter, No. 80, Iron Age Pivot Wheel Riding Cultivator, Iron Age Four Row Sprayer and the Iron Gate Potato Digger. Each of these implements is especially adapted for its work, and their use is sure to make potato culture much easier and more profitable. This firm has gotten out a beautiful catalogue under the title of the "Iron Age Book," which fully describes their entire line of machinery, and will be sent free on application to the above address. Their special announcement of this machinery appeared on page 381 of our April issue. If you have not a copy handy, send to us for one and we will very cheerfully forward it.

COOPER'S SALE.

We have pleasure in calling attention to the half page advertisement of the Annual Auction Sale of T. S. Cooper & Sons, Coopersburg, Pa., to be held on May 30th, Memorial Day, at their beautiful farm, "Linden Grove." It is futile for us to attempt any description of the Jerseys which will be offered at this sale. For a number of years past, Mr. Cooper has practically scoured the Island for its very best. The public at large, and especially the Jersey world, know and appreciate his efforts and selections. This occasion will be an assemblage of Jersey breeders, and in addition to the interest in the sale, there is always "on tap" an unlimited supply of hospitality from the host as well as Jersey gossip and good fellowship among those who attend these annual sales. Their splendid catalogue will be ready about May 1st, and will be sent free to all who will write for it. Don't fail to get the catalogue and attend this sale.

HYGEIA FARM HOLSTEINS.

THE FINEST HERD OF REGISTERED HOLSTEINS

EVER BROUGHT TOGETHER
IN THE SOUTHERN STATES.

COWS

THE JESSIE VEEMAN FAMILY

headed by that grand individual, JESSIE VEEMAN A., and including seven of her daughters justly come first.

JESSIE VEEMAN A. is admitted by the best judges to be one of the finest types of the Holstein cow. She was the winner of the championship and the first prize at New York State Fair in 1905. Her A. R. O. Record is 26.25 lbs. butter in 7 days, with a daily milk production of over 33 lbs.

JESSIE VEEMAN HENGVERELD, one of the daughters of this cow, at 3 years produced 16.8 lbs. butter in 7 days, and at 4 years 20.33 lbs. butter in 7 days, under official test.

JESSIE VEEMAN C., another daughter of Jessie Veeman A., closely resembles her mother in outward conformation. She carried off the highest honors at the New York State Fair in 1905 under the strongest competition. Her A. R. O. Record is 19.61 lbs. butter in 7 days, and 79.12 lbs. butter in 30 days.

The five other daughters are splendid individuals and show great producing ability.

JOE BACH JOSEPHINE

another famous member of the herd, is one of the five cows which won the "dual purpose test" at St. Louis in 1904. Her A. R. O. Record is 23.33 lbs. butter in 7 days.

SCOTIA 4TH, A. R. O. Record, 20.18 lbs. butter in 7 days.

NETHERLAND FANCY ROSETTA, A. R. O. Record, 20.53 lbs. butter in 7 days.

COUNTRESS DORINDA DE KOL, A. R. O. Record, 20.37 lbs. butter in 7 days.

Princess KORNDYKE DE KOL. This is a very fine individual whose breeding shows a combination of the blood of DE KOL 2ND, BELLE KORNDYKE, JESSIE BEETS, and NETHERLAND HENGVERELD. The average official record of her two nearest dams is 24.43 lbs. butter in 7 days.

BULLS.

PONTIAC CALYPSO'S SON.

This grand young bull is very much the type of his grandsire, HENGVERELD DE KOL, the greatest living bull, and the sire of over 55 A. R. O. daughters. His dam was 75 per cent. the same blood as the WORLD'S CHAMPION of the two-year-old class, PONTIAC COLUMBO. This young bull is also half brother to the WORLD'S CHAMPION YEARLING, SHADYBROOK GERREN PARTHENA FOURTH, who produced at less than two years old, 17.86 lbs. of butter in seven days. Her milk during the test showed a percentage of 6.79 of butter fat.

His three nearest dams have an average official record of 25.98 lbs. of butter in 7 days. Average per cent. of fat 4.05.

AAGGIE CORNUCOPIA MERCEDES COUNTESS

is also a very fine young bull, a grandson of the world's champion cow, Aaggie Cornucopia Pauline, A. R. O. Record 24.31 lbs. butter in 7 days. He traces five times to the great cow, DE KOL 2ND, through the sires, DE KOL 2ND'S PAUL DE KOL, 45 A. R. O. daughters, and DE KOL BURKE, 23 A. R. O. daughters.

KING ORMSBY FRIEND

This bull is an animal of exceptionally fine conformation. His dam, PAULINE DE KOL MUTUAL FRIEND, produced under 2 yrs. of age, 15.22 lbs. butter in 7 days, and as a 3 yr. old, 19.55 lbs. butter in 7 days, official tests. His half sister, JOHANNA ORMSBY DE KOL, at less than 2 years old made an A. R. O. Record of nearly 15 lbs. butter. The records of his two granddams, DUCHESS ORMSBY and DE KOL KONIGER PAULINE, average 23.79 lbs. butter in 7 days, official tests. He traces four times to De Kol 2nd.

WHY HOLSTEIN FRIESIANS?

Superiority of Holstein Butter.

One of the most scholarly and thorough works on cattle is "A Monograph on the Ayrshire Breed of Cattle," by E. Lewis Sturtevant, M. D., and Joseph N. Sturtevant. Though strongly favoring Ayrshires, the authors, with the candor of true scientists, publish the following, page 224, experiment 14:

"One sample of Holstein butter, one of Guernsey butter, seven of Jersey butters, and three of Ayrshire butters were placed in a cupboard adjoining a steam heater. A few days later another pat of Ayrshire butter was added.

"The Guernsey butter was very high-colored, melting point 98° C., had an oily rather than a waxy look, but was very attractive. It moulded in spots in about a month.

In seven weeks the Jersey butters were all rancid, and one had lost its color in spots. The white spots reminding of tallow—no butter flavor.

"The Ayrshire butters were not rancid, but had lost flavor and were poor. The last specimen placed in the same cupboard, but on an upper shelf, was forgotten. When examined, three and a half months later, it still retained its flavor and taste, but was not strictly first-class.

"The Holstein butter was well preserved, being neither rancid nor flavorless."

For further information come to Hygeia Farm and receive a cordial welcome, or write

SAMUEL ADAMS ROBINSON, M. D., Prop.

COVESVILLE, ALBEMARLE COUNTY, VA.

WASHINGTON NOTES.

Opposed to Free Seeds.

As the impression prevails in some quarters that Secretary Wilson and the officials of the Agricultural Department favor a continuance of the free distribution of seeds, an inquiry was addressed to Dr. B. T. Galloway, Chief of the Bureau of Plant Industry, to which Dr. Galloway replied:

"The views of this department, with reference to the distribution of miscellaneous vegetable and flower seeds, have been clearly set forth in our various reports. The attitude of the department was stated by the secretary in his report for 1903, extract from which I send enclosed."

The extract says: "With regard to securing and distributing miscellaneous garden and flower seeds, the fact remains that this work does not accomplish the ends for which the law was originally framed. There are collected, put up and distributed now, on Congressional orders, nearly 40,000,000 packets of such seeds each year. These seeds are the best that can be obtained in the market, but from the fact that large numbers of packets are wanted, the seeds obtained can be of standard sorts only, such as are to be found everywhere for sale in the open market. As there is no practical object to be gained in distributing this kind of seed, it seems desirable that some change be made. To this end, it would seem wise to limit our work entirely to securing and distributing seeds, plants, etc., of new and rare sorts. This in a line of work that would result in much more value to individual districts throughout the country than the distribution of a large quantity of common varieties of garden seeds, which have no particular merits, so far as newness or promise or concerned."

Those members of Congress who still hang on to "free seeds" are defending their position by asserting that "the farmer wants them." This position appears untenable, from the fact that the National Grange, at its last annual convention, at Portland, Oregon, vigorously condemned the free-seed appropriation, as have the State granges of Illinois, New York and other States.

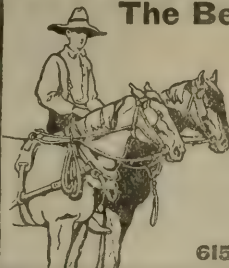
Limit Cold Storage.

Dr. Harvey W. Wiley, chief chemist of the Agricultural Department, is following up a line of scientific investigation of the effect upon perishable goods of cold storage for an unlimited time, and believes he will develop the fact that legislation limiting the period for which such articles as meats and milks may be stored is needed.

A space in one of the Philadelphia cold storage houses has been set aside for the experiments and a like arrangement has been made at Washington. In these places have been placed birds and milk.

SLOAN'S LINIMENT

For Your Family and Your Horse
The Best Antiseptic Known.



TRY IT FOR

Rheumatism, Strains,
Sprains, Swellings
and Enlargements.

Price, 25c., 50c. and \$1.00.

Dr. EARL S. SLOAN,
615 Albany St., Boston, Mass.

Large Yorkshires

The Tidewater Railway is taking a portion of our best farming land and we must reduce our breeding operations, and have decided to offer a portion of our

Imported Boars and Sows,

besides a number of weanling pigs. This presents a rare opportunity to secure great foundation animals of this great breed. PRICES LOW. Address

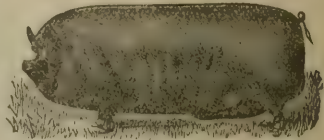
BOWMONT FARMS, Salem, Va.

Fancy Berkshire Pigs

from directly imported sows and boars, practically imported blood for you at one-third usual price for such breeding; half imported and half American breeding at pocket-change prices—just a little money order—no bank account needed for these. Extra fine open and bred girls

PEKIN DUCKS and EGGS for sale. S. C. Brown Leghorn

eggs cheap. Barred Plymouth Rock eggs cheap. Absolutely pure—all of them. Thomas S. White, Lexington, Va.



Sir John Bull.

GLENBURN BERKSHIRES

Pigs out of splendid IMPORTED and American sows, and by grand IMPORTED boars, including LOYAL HUNTER, the largest and best boar ever imported into this country. These represent the best herds and greatest winners of England and America. Have recently added to our herd, two splendid daughters of LORD PREMIER in pig by PREMIER LONGFELLOW, grand champion of the World's Fair. Also two superb COMBINATION Sows in pig by the great MASTERPIECE, the highest priced boar of the breed. A. J. C. Jersey cows, bulls and heifers for sale. Mention this paper.

J. D. KIRK, Roanoke, Va.

BERKSHIRES

of the most fashionable English strain, for sale by

Col. HENRY HOLLYDAY, EASTON, MD.
Prices reasonable. Correspondence solicited

MORVEN PARK.

The Property of WESTMORELAND DAVIS, Esq.

Large White Yorkshires.

LARGE WHITE YORKSHIRE PIGS from prize winning families for sale. Herd headed by imported boar, "Holywell Huddersfield" No. 4850 (A. Y. C.), second prize at Yorkshire Show, England 1904. These pigs are the English Bacon breed: they are prolific breeders, economical feeders, and hardy of constitution. During the month of August the two farrowing sows, imported Sweetest Polly (A. Y. C.), gave birth to 17 pigs, and the sow imported Holywell Empress (A. Y. C.), gave birth to 14 pigs, and in December 1905, Holywell Czarina, 20th. farrowed 17 pigs. Orders will now be received for boars and sows from some of these and similar litters.

Reg. Guernsey Cattle.

REGISTERED GUERNSEYS—Herd headed by imported Top Notch, 9023 (A. G. C. C.), a son of Imported Itchen Beda advanced Reg. No. 136, assisted by Mainstays Glenwood Boy, 7607, A. G. C. C. (son of Jewell of Haddon), advanced Reg. No. 92. This herd is rich in the blood of Mainstay, Rutila's Daughter, Imported Honoria (Guernsey Champion, first prize at St. Louis), the Glenwood, Imported May Rose and imported Masher families. Bulls only for sale.

Dorset Horn Sheep.

DORSET HORN SHEEP.—Flock headed by the Imported Ram, "Morven's Best," No. 4132 (C. D. C.); first prize at the English Royal 1904.

Orders now received for Fall born ram lambs.

Flocks and herds may be viewed by appointment.

Address

LIVE STOCK DEPARTMENT, MORVEN PARK,
LEESBURG, LOUDOUN CO., VA.

The birds have now been on storage for more than a month, but no examination has yet been made.

The materials will be taken out from time to time and examined to ascertain whether or not deterioration has begun, and when the point has been reached when the articles can be no longer stored and remain as good food.

Dr. Wiley says that it has already been demonstrated that the bacteria that occasion decay remain in the meat while frozen, and that they actually carry on their work, although at a greatly reduced rate.

A piece of meat, found some time ago in a cold storage plant in Cleveland, had been mislaid and forgotten for a period of eleven years. It was sent to the chemist and a portion thawed out and examined.

It was found that decay had gone on to such an extent that the meat was entirely unfit for use. The greater portion of it was again placed in storage and the observation to be continued.

The fact that the meat, having been frozen for eleven years, was in a condition of decay is held to conclusively prove that the bacteria work in the meat while frozen. The object of the investigation is to ascertain at what point the decay has progressed to such an extent as to injure the food value of the article stored.

There is at present no law prohibiting the storage of any article for any length of time. The only law upon the subject is one that requires fowls to be drawn before they are placed in storage.

Should the investigation now being carried on prove that foods in cold storage actually decay, it is probable that a law will be asked limiting the time of storage.

Altering Pigs.

"The fact that so many pigs succumb to the operation of castration, or suffer from tumors forming in the scrotum after removal of the testicles," states a report just received by the Department of Agriculture, "is largely due to carelessness and ignorance," says Dr. A. S. Alexander. It is a very easy matter to castrate a pig, but just as easy to do it wrong. Most of the trouble comes from the use of dirty instruments and rough handling. The knife that is used for tobacco-cutting and is specially sharpened when the time comes to castrate pigs is apt to cause infection. It may be a suitable knife otherwise, but is dirty, and should be thoroughly cleansed before using. Boiling will suffice if that can be done, which is seldom the case. It is, therefore best to immerse it in a strong disinfectant before and after operating on each pig.

The hands should be cleansed with a similar solution, and it is well to use it also upon the parts to be operated upon. As it is, pigs are often taken

Special Offer for MAY. POULTRY and PIG Bargains.



22 Buff Leghorn Pullets, and two Cockerels at \$15 per dozen.
30 S. C. Brown Leghorn Pullets and hens at \$15 per dozen.
12 Silver Wyandotte Pullets and one choice Cockerel, \$18 for the lot.
18 Barred Rock Pullets and 3 Cockerels at \$15.00 each.
4 R. C. Black Minorca Pullets and 1 Cockerel, very fancy lot, \$10 for the lot.
Choice lot of Buff Orpingtons and Partridge Cochins, at \$15 per dozen or \$1.50 per bird.
Fancy Pekin Ducks \$3 each, Ducks same price.
Eggs of all of the above breeds. Chicks and many others from choice matings, at \$1.50 per 15 or \$4 for 50. Pekin Duck Eggs \$1.50 per dozen, \$5 per 50. White Holland and Bronze Turkey Eggs from Fancy Birds at \$4 per dozen.
Four fancy Berkshire Boars, weight 200 to 250 lbs., by Biltmore Boar and out of "Hood Farm" Sows, \$25 each. Five choice Sow Pigs, weight 50 to 60 lbs., same breeding, at \$10 each, and they are beauties. One 300 lb. Berkshire Boar, registered, \$55. One Poland China Boar, 12 months old, \$22.50, and many other barains. Poland China, Chester White and Berkshire Pigs, all ages. Shropshire and Southdown Sheep, all ages, and eligible to registry. All pigs and hogs eligible to registry. Do not delay—order to-day and I will guarantee that you will be pleased. Address, JAMES M. HOBBS, 1521 Mount Royal Ave., Baltimore, Md.

LARGE ENGLISH BERKSHIRES FOR SALE

One 10 months old BOAR, correctly marked, well grown, out of an imported sow farrowing 12 pigs at this litter.

Some extra bred Gilts and pigs not akin for sale.

FOREST HOME FARM
PURCELLVILLE, VIRGINIA,

The Grove Stock Farm



N. & W. and So Ry.

Holstein Friesian Cattle.
Berkshire Hogs.
Barred Plymouth Rock Cockerels.

GOOD STOCK AT REASONABLE PRICES.

I have recently added to my Berkshire Herd the Imported Boar, GLENBURN CATCH, 84794. You are sure to want some of his get.

T. O. SANDY, Prop. Burkeville, Va.

Large English Berkshires

Extra choice March and April litters and more to follow, at low figures. Biltmore and other noted blood. Headed by 2 Royal Boars. Book orders now and be in time C. S. Tawler, The Hogman, Red Hill, Va.



DUROC-JERSEYS

are at the top and there to stay. Write us and we will give you some hog facts that will convince you.

We have the blood of ORION, OHIO CHIEF (recently sold for \$2,000.00), SENATION, SURE WINNER, TOPNOTCHER, PROTECTION, KANT-BE-BEAT, LONGFELLOW, WASHINGTON KING, GO-FORWARD, FAYETTE CHIEF, and HIGH CHIEF besides a string of others of the leading Western winning strains, THE VERY CREAM OF DUROC-JERSEY BREEDING. Our prices are low and the quality is high. We can save you money in the purchase price and in expressage. Write at once and we will give you some DUROC FACTS.

LESLIE D. KLINE, Vaucluse, Va.

BARON PREMIER 3d. 75021.

is not for sale unless a cash offer of \$3000 is made. I regard him as being the best boar living in the United States to-day. He is a grand sire, a d nicks well with imported stock. At the Louisiana Purchase Exposition, St. Louis 1904 he was an easy winner of first prize in his class (of 35 entries) 12 and under 18 months. His sire, Premier Longfellow, was the Grand Champion and recently sold for \$2000.

Lord Premier 50001, a litter mate to the dam of Baron Premier 3d sold for \$1500 when a little more than six years of age. Dutchess 279th 75009, grand champion sow at the Universal Exposition in 1904 is very closely related to Baron Premier 3d. Baron Duke 60th 78356 is a half-brother and otherwise connected with Baron Premier 3d, selling for \$600 when a shoot, and subsequently declared champion boar at the Lewis & Clark Exposition. Baron Premier 3d, at a little less than three years old in breeding condition, is estimated to weigh 1000 lbs.

I have pigs from six weeks to ten months old out of selected imported and domestic sows sired by Baron Premier 3d to offer at reasonable prices. Our February sales amounted to \$1600. Write for illustrated catalogue.

Will sell one No. 2 De Laval Hand Cream Separator, which cost \$125 for \$80 cash; used about three weeks.

W. H. COFFMAN, Bluefield, W. Va.

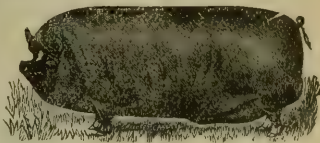


from a filthy pen and castrated without preliminary washing, and no provision is made to have them occupy a clean, disinfected and freshly-bedded pen, after the work has been done. Pigs should be taken from a clean pen, or washed before operating, and afterwards should go on to a clean pasture-field or into a pen that has been especially prepared by scrubbing, disinfection and whitewashing.

The next point is to make free incisions in the scrotum. Where small cuts are made, the wounds close too soon and retain blood or pus, and there is liability of the cords to become caught between the healing lips of the scrotal wounds, which will surely be followed by the formation of tumors such as we have alluded to. The cords should be severed high, and where this is done and the scrotal wounds are large, there is little danger of tumor formation. Rough handling, and especially dragging upon the cords, increases the liability to tumor and also to ruptures. When a pig is found ruptured in the scrotum at castration time it should be left uncut or castrated by the "covered" method. This consists in cutting through the skin of the scrotum alone, and then enclosing testicles and their envelopes in clamps, which will cause the parts to slough off and leave the sac healed, so that the intestines cannot descend. The same end may be achieved by stitching the envelopes skillfully.

Berkshire Bargains

3 gilts and 1 boar which were kept for the show ring this fall; farrowed Aug. '05; perfect beauties; price, \$25 each; also 5 pigs, 3 mos. old, intended for same purpose, at \$10 each; am selling to make room for spring litters. BRIDLE CREEK STOCK FARM, W. B. Fleming, Prop., Warrenton, N. C.



POLAND CHINA

:—: AND :—:

TAMWORTH PIGS

entitled to registration; also bred Sows at reasonable prices.

APPLY TO

J. C. GRAVES, Barboursville, Orange Co., Va.

Registered Poland Chinas.

Some choice pigs and gilts now ready for shipment. Their breeding is as fine as silk. I don't believe there is a better bred herd in the South. They combine the most popular western strains. My prices are reasonable and all the stock guaranteed as represented. Write for prices and testimonials. W. M. JONES, Crofton, Va.



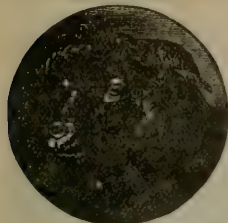
REGISTERED POLAND CHINAS.

M. B. TURKEYS and W. P. ROCKS, pigs, gilts and bred sows. Stock and eggs for sale; mammoth strains, prolific as breeders and layers. Remember that it is not our price, but quality that's high. T. M. BYRD, Route 3, Salisbury, N. C.

The South Side

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South Side M'fg. Co.,
Petersburg, Va.

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ROBERT C. BRAUER,
Commission Salesman of
Cattle, Hogs, Sheep, Lambs and Calves,
Union Stock Yard,
Richmond, Va.

Cruelty to Easter Chicks.

The general practice of merchants in many large cities of offering for sale during the Easter holidays of fluffy little chicks a few days old, seems to have awakened indignation in the minds of the tender-hearted and humane persons. The Humane Society in Washington is up in arms against such dealers as indulge in this practice, claiming that in most instances the chickens are sold only as souvenirs at Easter and find their way into the hands of very young children who kill them with kindness. The chickens, most of which are only a few days old, are entirely too young to be sold to persons who do not understand their care. The featherlings are put to the torture in being taken from the warmth of the hen or of the brooder at such an early age. The Humane Society believes that this is cruelty, and feels that it should be stopped if possible.

Glanders in British Columbia.

Consul Smith, of Victoria, reports to the Department of Commerce and Labor a determined effort to drive out the disease of glanders affecting the horses of British Columbia. The government recompenses the owners of animals killed to the extent of two-thirds their value. Nearly 500 horses have been thus slaughtered, and the government has also decided, the more effectually to drive out the epidemic, to exterminate the 5,000 horses now roaming over the province.

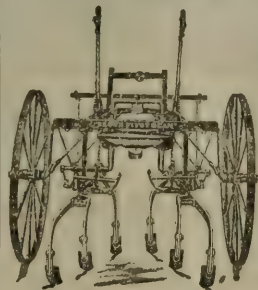
GUY E. MITCHELL.

Stories for girls and stories for boys; stories which both girls and boys will enjoy; sketches and illustrations which appeal especially to older readers; jingles and pictures for the littlest ones of the family; St. Nicholas League again in full, besides the other fascinating departments, make the May St. Nicholas.

Rockbridge Co., Va., Feb. 17, '06.
I like the Southern Planter very much.

J. A. SHAW.

Two Horse RIDING and WALKING CULTIVATORS.

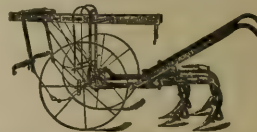


As much a necessity to-day as the Double Shovel was twenty-five years ago.

Farm labor is scarce and improved machinery is more in demand.

Our goods are thoroughly tested by years of use and no line has a more favorable reputation on the market.

Ask your Dealer about them or write us direct and we will send circulars.



BROWN MANUFACTURING CO.,
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HENING & NUCKOLS, General Agents, Richmond, Va.

COW PEAS

WE ARE HEADQUARTERS

Can supply BLACK, CLAY, WHIPPOORWILL, NEW ERA, SOUTHDOWN, MIXED.

Write us your wants and we will quote you. Orders have prompt attention at lowest market rates.

WALLERSTEIN PRODUCE CO., Richmond, Va.

ESTABLISHED 1877

IF INTERESTED, WRITE US

POTTER & WILLIAMS,

—WHOLESALE—

FRUIT AND PRODUCE DEALERS AND COMMISSION MERCHANTS,

144, 146 and 148 Michigan St., BUFFALO, N. Y.

Particular attention given to Berries, Peas, Beans, Cabbage, Cukes, Potatoes, Cantelopes, etc.



COOPER & SONS SALE MAY 30 1906 AT COOPERSBURG, PA.

A PLEASED BUYER IS THE BEST ADVERTISEMENT.

The imported Jersey Cattle sold at our May, 1905, Auction Sale have given universal satisfaction. My most sanguine expectations have been more than realized. How could it be otherwise? Individually, they were strictly FIRST-CLASS.

BEST OF ALL, they were bred on both dam and sire's side from animals that have made the Island cattle so famous—the blood that wins at the churn and in the show-ring.

Catalogues ready for distribution May 1, and owing to the great cost of publishing same, they will only be sent on application. Address

T. S. COOPER & SONS, "Linden Grove," Coopersburg, Pa.

P. S.—Would respectfully request parties who are in want of an extra fine bull calf, or a few fine heifer calves, that they send for a catalogue, which will give them full particulars, and if they are not able to attend the sale in person, that they send in their bids, and they will receive the same attention as if the buyer was a bidder himself. It is with pride that we refer to parties that have entrusted such orders to us. This will be a rare chance to get calves out of the very best cows the Island can furnish, and sired by prize-winning bulls, and they will not cost you more than others that have no breeding.—T. S. C. & Sons.

Sidney Prince, 32932,

Record 2.21½

by Sidney, 4770 dam Crown Point Maid, by Crown Point, 1990. Sire of Newbury, 2.15½, and 7 others in list. Fee \$35 season.

ROD OLIVER, 36169,

chestnut horse, 5, by Electrite, 10878, dam Lady May, dam of Blondie, 2.13½, etc., by Port Leonard, 12953. Fee \$25 insurance.

MOKO Jr.,

Brown horse 5, by Moko, 2447, dam Rosa Baron, by Earl Baltic, 1724. Fee \$25. Insurance.

RED DILLON, 38696,

bay horse 4, by Baron Dillon, 17237, dam Zinda Lake, by Red Lake, 25983. Fee \$30 insurance.

Address,

FLOYD BROS. Bridgetown, Va.

JUDGE COX, 22236,

Brown Horse, by Phalanx, 8754, dam Kate Messenger, by Messenger Chief, 1825, Sire of Coxey, 2.15, etc.

For terms,

E. T. COX, McKenney, Va.

"IN THE STUD." The Mammoth Jack

KING JUMBO,

A good individual and promising sire, Fee \$5 leap; \$10.00 season; \$15. insurance. O. N. NUCKOLS, owner, Rio, Vista, Va. E. F. D., No. 1.

"HUNTER HILL FARM," property of Thomas S. Winston. FANCY HALL, (saddle stallion) bay horse, 15.3; 1,100 pounds, by Prince Hal, dam Fancy Girl, by Fancy Boy. Fee \$5 leap; \$8 season; \$12 insurance.

KING OF SPAIN, Black Spanish Jack. A good specimen. Fee, \$5 leap; \$5 season; \$12 insurance. Address,

HUNTERS HILL FARM, Apple Grove, Louisa Co., Va.

Stallion cards, folders, posters and stock Catalogues compiled by "Broad Rock" who is also prepared to trace pedigrees and register hor-

LORD CHANCELLOR 36614,

trial 2:27½, trotting.

Black horse, foaled 1899, 15.3 hands, weight 1,100 lbs. sired by Dare Devil, 2:08 (son of Mambrino King, 1279, and Mercedes, by Chimes, 5348; by Electioneer, 126).

1 dam Princess May R., by Prince Regent, 2:16½ (son of Mambrino King and Estabella, by Alcantara, 2:23, by George Wilkes, 2:21).

2 dam Mary Weston (dam of 3 producers) by Mohican, 615.

Note.—Lord Chancellor is a horse of commanding form and handsome proportions. His sire, Dare Devil, one of the finest horses in America, is owned by Thomas W. Lawrence, the famous Boston fancier, who paid \$50,000 for him, for use in Dreamworld Farm stud. Lord Chancellor is inbred to Mambrino King, founder of a family noted for wonderful beauty, matchless style and superb race horse quality.

For terms of service and keep of mares, address: W. J. CARTER, 1102 Hull Street, Manchester, Va.; or P. O. BOX 929, Richmond, Va.

PLANETEER, 2nd.

See Amer. Trotting Register, Vol. 17. ay horse, 15.3, weight 1,100 lbs. by Electioneer, 125, sire of Arion, 2:07½; Sunol, 2:08½; Palo Alto, 2:08½, etc.; dam Planetia, granddam of Peko, 2:11; Pedlar, 2:13½, etc., by Planet, thoroughbred son of Revenue.

Planeteer has good conformation along with fine trotting action and even temper, which he transmits with uniformity. For terms of service and keep of mares address E. E. GRAYES, Rodes, Va.; or W. E. GRAYES, Lynchburg, Va.

ses, having full sets of the American Trotting Register Stud Books, Wallace's Year Books, and other standard works, in addition to extensive private memoranda. Address

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Representing "The Times Dispatch" and "Southern Planter," Richmond Va. "Kennedy Stock Farm," and "The Thoroughbred Record," Lexington, Ky., "Sports of the Times," New York. Breeder and Sportsman, "San Francisco, Cal., and The Horseman, Chicago, Ill.

Plain Dealing Farm,

W. N. WILMER, Proprietor.

49 Wall Street, New York.

VIRGINIA CHIEF, 27267,

Black horse, 16 hands high, weight, 1,900 pounds. Sired by Kentucky Prince, 3679; dam Nina, by Messenger Duroc, 104.

Fee, \$10 season; \$15 insurance.

AEBINEER, 30923,

Chestnut horse, 15.3 hands, weight 1,100 pounds. Sired by Virginia Chief, 27267; dam Aebina, by Alban, 5332.

Fee, \$8 season; \$12 insurance.

PLAIN DEALING, 30921,

Chestnut horse, 15.1 hands, weight 1,050 pounds. Sired by Virginia Chief, 27267; dam Barbara, by Alcantara, 729.

SEE \$10 INSURANCE. Address PLAIN DEALING STOCK FARM, Scottsville, Albemarle Co., Va..

HACKNEY STALLION,

PATRICK HENRY,

Sired by "Squire Rickel," a blue ribbon winner, by Cadet, a great sire of show ring winners; dam, "Marjorie," a gold medal winner, by "Roseberry," a championship winner at Toronto.

Terms: \$5 leap; \$10. season; \$15. insurance

A. POLLARD & SON, Dunraven Stock Farm,

R. F. D. 5, Richmond, Va.

DON'T MAKE GARDEN IN A DAY.
J. C. Whitten, Horticulturist of Missouri University gives the following timely suggestions for garden-making:

"If the garden is planted all in a day, to get the disagreeable job out of the way, it is probable that only one or two species of plants will do their best. Some will have been planted too early and others too late." For best results in garden-making each kind of plant should be put out the time when conditions are best suited to it. Lawn grass seed, sweet peas, parsnips, onions, spinach and some other species should be planted as soon as the soil can be worked in spring. Seeds of all these will germinate, and even make stronger growth, when the soil is only a few degrees above freezing. If it freezes more or less on cold nights after they are planted no harm is usually done.

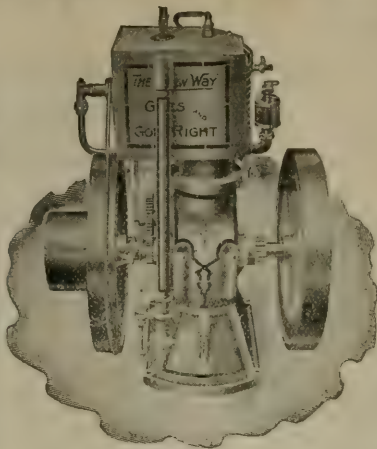
"Other plants like nasturtiums, candytuft, beets, potatoes, carrots, etc., have a large heat requirement and should be planted in mid spring, or at least later than the first mentioned list. They will not endure well if put out on the first days when the ground begins to thaw out but they should be planted before the soil gets very warm.

"Corn, beans, melons, cucumbers, tomatoes and many others require a warm soil and time will be gained if they are not planted until the soil is well warmed up to a considerable depth. If put out too early, the seeds are liable to decay in the soil. Even if the plants do grow they will become stunted by the cold and will not develop into good plants. It saves time to plant these warmth-loving kinds after the soil is warm.

"Some species need a great deal of heat. These are lima beans, okra or gumbo, egg plants, and some others. They should be the last vegetables planted. Still other species should be planted at intervals so as to get a succession of vegetables for the table. Most kinds which grow quickly may be planted in succession. Radishes, beets, lettuce, peas, and many others are best only when they are tender and succulent. Seeds of these may be planted every three weeks for a time, so as to have them tender during the first half of the season.

"No date can be mentioned for planting the different sorts. Seasons differ. It may be warmer one year on the first of April than it is two weeks later another year. If one will watch the starting of the leaves and flowers on early species of tree and shrubs, he can get an index as to the time to plant. To plant sweet peas when the willow catkins are coming out is a good rule and similar comparisons may be made for other plants. This is accurate for the willow starts, not on a given day in March, but when they have received heat enough to grow well."

Here is the "New Way" Air Cooled Gasoline Engine.



"THE FAN KEEPS IT COOL."

LLOYD R. PEERY, Eastern Sales Agent.

SIX REASONS WHY

YOU SHOULD BUY IT:

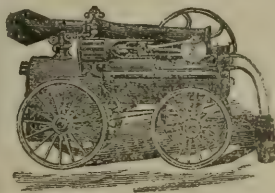
- 1.—No Water Tank to empty and fill daily in freezing weather.
- 2.—No water to freeze and break water jacket or cylinder and thereby cause a large expense for repairs.
- 3.—No water to form lime in the water jacket and obstruct circulation.
- 4.—No cylinder gaskets to leak compress or blow out.
- 5.—No carburetor gasket or carburetor needle valve.
- 6.—The oil from one cup lubricates piston, cylinder and all bearings automatically and with certainty.

The greatest specialty in a gasoline engine for the use of farmers that is on the market.

Write for our Special Introductory Proposition to first purchaser in each county.

Agents Wanted Everywhere. Exclusive Territory. Write for Catalog and Testimonials.

STEPHENS CITY, VIRGINIA.



SIMONDS & HOE INSERTED TOOTH SAWS.

Wheelbarrows,

Dump Wagons,

Wheel and Drag

Scrapers, Shovels, Etc.

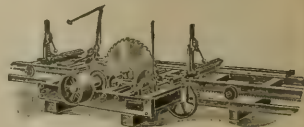
The WATT PLOW CO.

Richmond, Va.

Saw Mill Outfits.

Geiser and Huber Engines.

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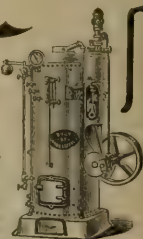
Steam Is Best

Don't be misled. You will get more real efficient service from the old reliable steam power than any other.



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have none of the uncertainties and annoyances of gasoline engines and other powers. No other power equals steam; no other engine equals a Leffel for planer's use. Horizontal,



tal, Upright, Portable. Send for free book and investigate before you buy power.

James Leffel & Co., Box 183, Springfield, Ohio.

THE TWO MARVELS

YAGER'S
COMPOUND
EXTRACT
SARSAPARILLA
WITH
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YAGER'S
CREAM
CHLOROFORM
LINIMENT
FOR
Man or Beast

This remedy has a world-wide reputation—established by its merit—as the greatest of all Blood Purifiers and Nerve Restorers; it is especially valuable and eminently successful in building up run down systems, it rejuvenates and revives the worn out man and woman, by expelling the impurities of the blood, and building up the nerve tissues.

It creates sound, healthy flesh, clears the complexion and strengthens the nerves, aids digestion, is helpful in Kidney diseases, and especially valuable in cases of Female Weakness and kindred ailments.

GET IT IN YOUR BLOOD

Is a never-failing pain remover. It actually Kills Pain, from whatsoever might be the cause. When Yager's Liniment comes in contact with Pain, the Pain must and will go.

This old family standby has back of it a reputation and a record of cures made, which entitles it to the broad claim of the most searching and energetic, yet soothing and efficacious, of all external applications ever offered the public. Rheumatism it relieves at once. Every family needs a bottle of Yager's Liniment, and should keep it ready for emergencies.

THE GREAT PAIN CURE

Mr. Paul Kramer, a painter of Windber, Pa., writes: "Has taken Yager's Sarsaparilla, and it is building up his run down system; before commencing to take it he weighed 138 lbs., after first bottle he weighed 144 lbs.; he is now rapidly regaining his health.

Mrs. L. E. Brown, of Raleigh, N. C., writes: "She can hardly explain the good that Yager's Liniment has done for her and family. She had Rheumatism so bad she could hardly get around, and began using this Liniment and soon found relief.

These two valuable remedies are marvels, because they have, and are constantly effecting marvelous cures. In cases of Rheumatism the two remedies, when used together, are a positive cure; try this treatment. Thousands of testimonial letters are received from grateful people who have been cured by them.

ALL DEALERS SELL YAGER'S SARSAPARILLA, 50c. YAGER'S LINIMENT, 25c. LARGE BOTTLE GILBERT BROS. & CO., Manufacturers, BALTIMORE, MD.

Culpeper Co., Va., Feb. 22, '06.
I think the Southern planter is the finest paper I ever read.

J. B. SMITH.

Buncombe Co., N. C., Feb. 26, '06.
I read the Southern Planter with a great deal of interest.

O. B. WRIGHT.



Lumpy Jaw Cured Onstad's Capsules
Tested 17 Years.

The approved remedy of stockmen. Cures 99 out of every 100 cases, including the very worst. Any intelligent person can apply, no danger, no scar. Effects always immediate—only one treatment needed.

GOOD RESIDENT COUNTY AGENTS WANTED EVERYWHERE.
The Onstad Chemical Co., Room 1, 622 North N. E. St., Indianapolis, Ind.



O. H. Chase
St. Louis, Mo.

I Am the Paint Man

2 Full Gallons Free to Try—6 Months Time to Pay

You Pay No Freight to Try My Paint.

I AM the paint man. I have a new way of manufacturing and selling paints. It's unique—it's better. Before my plan was invented paint was sold in two ways—either ready-mixed or the ingredients were bought and mixed by the painter. Ready-mixed paint settles on the shelves, forming a sediment at the bottom of the can. The mineral in ready-mixed paint, when standing in oil, eats the life out of the oil. The oil is the very life of all paints.

Paint made by the painter cannot be properly made on account of lack of the heavy mixing machine.

My paint is *unlike* any other paint in the world. It is ready to use, but not ready-mixed.

My paint is made, order after each order is received, packed in hermetically sealed cans with the very day it is made stamped on each can by my factory inspector.

I ship my pigment—which is white lead, zinc, drier and coloring matter freshly ground, after order is received—in separate cans, and in an-

other can I ship my Oil, which is *pure oil process* linseed oil, the kind that you used to buy years ago before the paint manufacturers, to cheapen the cost of paint, worked in adulterations.

I sell my paint direct from my factory to user at my very low factory price; you pay no dealer or middleman profits.

I pay the freight on six gallons or over.

My paint is so good that I make this wonderfully fair test offer:

When you receive your shipment of paint, you can use *two full gallons*—that will cover 600 square feet of wall—two coats.

If, after you have used that much of my paint, you are not perfectly satisfied with it in every detail, you can return the remainder of your order and the two gallons will not cost you one penny.

No other paint manufacturer ever made such a liberal offer.

It is because I manufacture the finest paint, put up in the best way, that I can make this offer.

I go even further. I sell all of my paint on *six months' time*, if desired.

This gives you an opportunity to paint your buildings when they need it, and pay for the paint at your convenience.

NOTE—My 8 Year Guarantee backed by \$50,000 Bond

Back of my paint stands my Eight Year, officially signed iron-clad Guarantee.



This is the longest and most liberal guarantee ever put on a paint. For further particulars regarding my plan of selling, and complete color card of all colors, send a postal to O. H. Chase, St. Louis, Mo.

I will send my paint book—the most complete book of its kind ever published—absolutely free. Also my instruction book entitled "This Little Book Tells How to Paint" and copy of my 8 year guarantee.

O. H. Chase The Paint Man.
7219 Olive Street,
St. Louis, Mo.

Kansas City, Mo., March 15, 1906.
The Missouri State Horticultural Society will hold its summer meeting at Moberly, June 12, 13, 14, 1906.

This date is set so that it will not conflict with the commencement exercises of our State Institutions.

The Society will discuss the practical questions which are of interest to every fruit grower in orcharding, berry plantations, marketing, spraying, etc., etc. Part of the program was arranged at the last meeting of the Executive Committee, and, as usual, we are glad to get suggestions for the program, topics for discussion, questions, facts and experiences from many of our fruit growers.

The Commercial Club and our local members at Moberly will help make this meeting an interesting one, therefore, it will pay you to come. We expect to secure the usual rates at the hotels and on the railroads.

J. C. WHITTEN, President,
Columbia, Mo.

L. A. GOODMAN, Secretary,
Kansas City, Mo.

Carthage, N. Y., Feb. 22, '06.

The Southern Planter ought to be in the hands of every farmer in the State of Virginia.

W. K. SQUIRES.

Lunenburg Co., Va., Feb. 20, '06.

The Southern Planter should be in the home of every famer. Its cost is nothing compared to its value.

T. C. MADDUX.

Charlotte Co., Va., Feb. 20, '06.

I could not get on without your excellent monthly, the Southern Planter. THOS. F. WATKINS.

"Paints that stay Painted."

PAINT is what you need. Do you know that PAINT will preserve and improve your property? PAINT will give your property a prosperous appearance. PAINT will increase the value of your farm. We have PAINT on hand for everything—PAINT for roofs and barns. LYTHITE COLD WATER PAINT. Carriage and wagon PAINT. Our "Standard" house PAINT is ready-mixed, and for the money no PAINT can surpass it. Write us for PAINT prices and color cards.

JOHN W. ATKINSON & CO.,
Richmond, Va.

"JONES" FENCES & GATES



last longer than others for the same reason that slate roofs outlast shingles—they're *much better to start with*. There's no economy in buying a "cheap" fence that is worthless after five winters when you can get the "Jones" that will

Wear 20 to 30 Years.

Big coated spring wires; heavy stays; locks that do not slip; good galvanizing. Easily put up to stay. Our Catalog No. 8 will help you decide what to buy—contains practical fence pointers. Sent free upon request.

INTERNATIONAL FENCE & F. CO.,

698 Buttles Ave., Columbus, Ohio.

Agents Wanted—Hustlers can make honest money selling "Jones" fences and gates.

GO BACK AND SHUT THE GATE!

Do you know how common that expression is, and how much spice and vigor sometimes go with it? It is not the farmer alone that has yelled this daily, but is heard at many places where constant care is necessary to protect the home of years of toil.

The Manlove automatic gate contributes very materially to maintain that equanimity of temper so desirable in all well-regulated families. It will not stand partly open but closes and fastens itself and cannot be opened by stock. All are alike welcome as it opens and closes on the approach of a vehicle. It is duly advertised in this issue of the Planter and Mr. Manlove will be pleased to send you some circular matter on self-opening gates if you will ask for same, mentioning this paper.

ANDERTON VEHICLES.

"Try an Anderton with your money in your pocket" has come to be a familiar saying with our readers. It calls now to your attention the excellent vehicles that are being sold on a most advantageous plan by The Anderton Mfg. Co., of Cincinnati.

It is really a most serviceable and stylish line of vehicles that the Anderton people are turning out. The wonder appears when the prices are named. A well-built top buggy, all complete, sold under a two year approval test and guarantee for \$35.50. That is but a sample. There are buggies, surries, stanhopes, phaetons, driving wagons, spring wagons, etc., all at as low figures proportionately. It is certainly a revelation to look through the catalogue.

The low prices of the Anderton people are only to be accounted for by their direct dealing with the people. They have a large factory, fully equipped; no middle men, no agents, no royalties, the least materials. The greatest reason of all is that the buyer has only one profit to pay. That goes to the factory.

The Anderton catalogue, a 110 page book, explains in detail the things that can only be hinted at here. It is a good book for vehicle buyers to have before purchasing. A copy can be had merely by writing to the Company at the address given and mentioning this publication.

RICHARD'S REASONING.

Richard startled his mother one day by asking, "How does it come that Ned's papa is Mr. Artman through the week and Jesus on Sunday?"

"Why, Richard, he is always Mr. Artman. He isn't Jesus."

"Yes, he is. On Sundays we sing 'Give your pennies all to Jesus,' and then Mr. Artman comes 'round and gets 'em.'—April Lippincott's.

—THE NEW—

AMERICAN SAW MILL

VARIABLE FRICTION FEED
Ratchet Set Works, Quick Receptor, Duplex
Steel Dogs, Strong,
ACCURATE AND RELIABLE.

Best Material and Workmanship. LIGHT RUNNING, requires Little Power. Simple. Easy to Handle. Won't Get Out of Order.

\$155.00 CASH
buys it on the cars at factory complete without Saw. Freight very low.

Warranted to cut 2000 ft. per day with 4 H. P. engine. Seven other sizes made. Also Edgers, Trimmers, Shingle Machines, Lath Mills, Rip and Cut-Off Saws, Drag Saws, Cord Wood Saws, and Feed Mills. Catalogue sent free.

"Rove, Mass., Oct 24, 1905—I have a No. 1 American Saw Mill and I send you an order for another just like it. I run it with my 8 H. P. portable gasoline engine; have saved 5000 ft. of lumber in 10 hours with it without any trouble. I use a 48 inch saw.
Yours truly, Bradley C. Newell."

AMERICAN SAW MILL MACHINERY CO., 137 Hope St., Hackettstown N. J. N. Y., Office.
636 Engineering Bld'g. Agents in Richmond, Norfolk, Lynchburg and Wytheville, Va.
THE WATT FLOW CO., General Agents, Richmond, Virginia.

SPRAY NOW

It will soon be too late.
100 Per Cent. Dividend.

ON THE INVESTMENT IN A
DEMING
SPRAY PUMP

Can be realized by any
FRUIT GROWER.

Best Iron.
Best Brass.
Best Construction.
Simple.
Durable.

Sydner Pump & Well Co., Inc.
Dept. B.
Richmond, Virginia.

CHARTERED 1870.

Merchants National Bank,

OF RICHMOND, VIRGINIA.

Capital, - - - - -	\$200,000.00.
Surplus and Undivided Profits, - - - - -	\$740,000.

Depository of the United States, State of Virginia, City of Richmond.

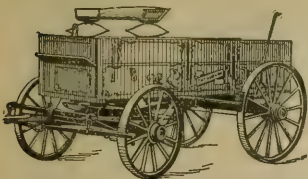
Being the largest depository for banks between Baltimore and New Orleans, we offer superior facilities for direct and quick collections. Accounts solicited.

JOHN P. BRANCH, Pres. JOHN K. BRANCH, Vice-Pres. JOHN F. GLENN, Cashier.
Assistant Cashiers: J. E. FEEDUE, THOS. B. MCADAMS, GEO. H. KEEKE.

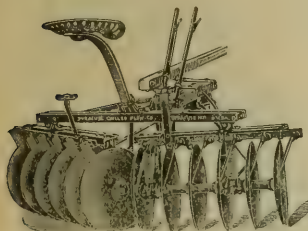
Three Per Cent. Interest Allowed in Savings Department.

Farm Implements and Hardware.

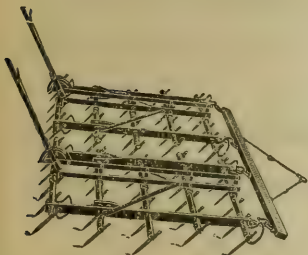
Be sure and write me for prices of any thing needed for farm use.



The Auburn Wagon is too well known to need any comment, I guarantee all sold by me.



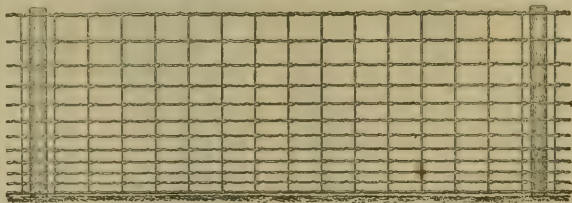
Syracuse Steel Frame Disc Harrow.



Syracuse Spike Tooth Harrow. Each section is furnished with a lever so that the teeth can be set to any angle without stopping the team.

Stands Like a Stone Wall

Turns Cattle, Horses, Hogs—Is Practically Indestructible



AMERICAN FENCE

Buy your new fence for years to come. Get the big, heavy wires, the hinge joint, the good galvanizing, the exactly proportioned quality of steel that is not too hard nor too soft.

We can show you this fence in our stock and explain its merits and superiority, not only in the roll but in the field. Come and see us and get our prices.

List of Some of the Goods I Carry.

Farm and Ornamental Fencing.

Farm Implements.

Farm Wagons.

Harness and Saddles.

Roofing such as V. Crimped, Tin, Gravel, Amazon Rubber and Tar Paper.

Galvanized Conductor and Down Spouts.

Sash, Blinds and Doors.

Hardware and Building

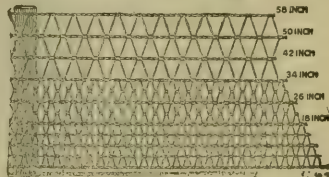
Materials.

Paints, Oils, Glass, &c.

Heavy Steel Cables

tied together securely with steel wire stays in uniform meshes make the substantial, solid, handsome

ELLWOOD FENCE



It is scientifically correct in every particular. No waste material, no weak place anywhere—no foolishness. **ELLWOOD FENCE** is all fence. It does its duty all the time, holds stock securely, outlasts your neighbor's cheap and wobbly excuse for a fence, and is guaranteed to you by the largest and financially strongest concern in the world in fence manufacturing. There is no reason why you should not have **ELLWOOD FENCE**. There is every reason why you should.

Write My Address in Your Memorandum Book So You May Have It at All Times.

B. P. VADEN, MANCHESTER, VA.

1501 HULL STREET.

ARE YOU READY FOR HARVEST.

There is a dignity about the International Harvester Company advertisement we are running which is befitting the subject. "Mother Nature has done her part. The fields are ripe. Are you ready for the harvest?" That is the dignified way the great Harvester Company introduces to our readers its excellent machines, Champion, Deering, McCormick, Milwaukee, Osborne, and Plano, which aid in the harvesting of so large a part of the grain and hay raised in America.

Readiness for the harvest is all important. As the grain and grass are ripe, so are the machines ready and equal to the duty. Nobody questions the superiority of the International mowers and reapers. They have all been tried in the field, all of them for many years. They represent individually the best skill and material and adoption to duty that the country has produced. Many other machines have been invented, but most of them have disappeared. These have survived—a case of "the survival of the fittest." It remains for the farmer who has ploughed and sown and raised his crop to provide himself from the machines at hand the particular ones which he needs to enable him to harvest his crop quickly and surely and economically.

No word of ours could add to the reputation of the International Harvester machines. It is enough to say that no mistake can be made by purchasing one of the six machines named. But the warning to get ready for harvest is timely. International agencies are established at every considerable trading point to facilitate distribution and furnish supplies and repairs. These agencies have catalogs and descriptive matter on the long line of harvesting machines the company builds in addition to mowers and binders. Farmers should call, procure the catalogs, make a study of them and determine in due time on the machines they will buy. Profitable farming demands improved machinery. Buy things that are standard and do it in time to have all things ready for the harvest.

THE NE PLUS ULTRA OF ALL PREPARATIONS.

Montezuma, N. Y., Nov. 23, 1905.
B. J. Kendall Co., Gentlemen:—I am a druggist and have sold Kendall's Spavin Cure for 30 years. It leads all competition. You have the ne plus ultra of all preparations.

Yours,
HORATIO MACK, Druggist.

Prince George Co., Va., Feb. 16, '06.

The Southern Planter is good enough for anybody to read as it contains so much information and instruction.

ROBT. M. DANIEL.



**Increase Your Yields
Per Acre**

Head High Tobacco

can easily be raised with regular, even stands, and of the very best grade, for which the highest prices can be gotten at your warehouse, or from tobacco buyers if you wish, a few weeks before planting; liberally use

Virginia-Carolina Fertilizers.

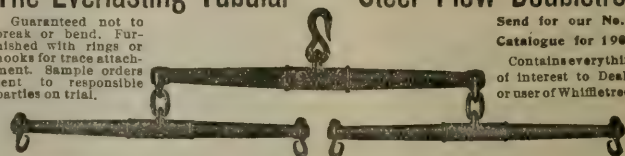
Use them again as a top dressing, or second application. These fertilizers are mixed by capable men, who have been making fertilizers all their lives, and contain phosphoric acid, potash and nitrogen, or ammonia, in their proper proportions to return to your soil the elements of plant-life that have been taken from it by continual cultivation. Accept no substitute.

Virginia-Carolina Chemical Co.

Richmond, Va.
Norfolk, Va.
Durham, N. C.
Charleston, S. C.
Baltimore, Md.
Atlanta, Ga.
Savannah, Ga.
Montgomery, Ala.
Memphis, Tenn.
Shreveport, La.

The Everlasting Tubular

Guaranteed not to break or bend. Furnished with rings or hooks for trace attachment. Sample orders sent to responsible parties on trial.



PATTERN No. 105 EQUIPPED WITH FORGED TRIMMINGS.

Also manufacturer of Farm Wagon Doubletrees, Neck Yokes and Singletrees.

Pittsburg Tubular Steel Whiffletree Company,
SOLE MANUFACTURERS
PITTSBURG - - PENNSYLVANIA.



CUT THIS AD OUT send it to us and we will mail you free the most complete catalog of vehicles and harnesses ever printed. This catalog is very large, the descriptions are complete and plain. All vehicles shipped direct from our factory. Prices listed are our astonishingly low prices and the most liberal terms ever made.

MARVIN SMITH CO. CHICAGO, ILL.

When corresponding with our advertisers always mention the
SOUTHERN PLANTER.

GOOD HOUSEKEEPING.

"How to Cook Beefsteak."

I have found this recipe in a very old scrap book and hope it will interest some of our readers as much as it does me.

"The following were the rules adopted by the celebrated 'Beefsteak Club' started in England in 1785.

"Pound well your meat until the fibre breaks;

Be sure that next you have to broil the steak,

Good coals in plenty, nor it a moment leave,

But turn it over this way and then that;

The lean should be quite rare, not so the fat.

The platter, now and then, the juice receive,

Put on your butter, place it on the meat,

Salt, pepper, turn it over, serve and eat."

Stuffed Beef Steak.

Use the Round steak for this, cut about an inch thick, buy three pieces, or else cut so as to have three pieces. Make a dressing of three full cups of stale bread crumbs, seasoned with a large spoon of butter, salt, pepper, a few pieces of chopped onion, and if you like it, a few celery seed. Put this between each layer of the steak and on top, put the pieces together firmly with sharp skewers, or tie with inch-wide strips of cloth. Put it in a pan and pour a cup of boiling water over it, cover it and let it bake slowly for two hours, baste, and add to the water if it all boils out.

Creamed Asparagus.

Cut the asparagus early in the morning and put it in water to keep it crisp. Scrape the larger pieces, and cut off the tough ends. Tie up in bunches and drop into boiling salted water, cover closely, and boil for half-hour or until tender. Drain off the water and pour on milk enough to nearly cover. Rub a large tablespoon of butter with a tablespoon of flour, and when the milk is scalding hot, put it in with the asparagus. Let it

FARMERS

MIX YOUR OWN FERTILIZERS

By so doing, you can save from \$7.00 to \$10.00 per ton and at the same time know that you are applying to your land the identical plant food which it needs.

Home mixing of Fertilizers is recommended by all the leading experiment stations.

We sell the farmer direct

Nirate of Soda Nitrate of Potash Sulphate of Potash
Murrate of Potash Kainit Basic Slag

PERUVIAN GUANO

A Complete Natural Manure.

ANALYZING: Ammonia 9%, Phosphoric Acid 9%, Potash 2%

PERUVIAN GUANO, A SUPERIOR BASE FOR HOME MIXTURES.

Peruvian Guano is a material that commends itself strongly as the best possible base for home mixtures. By its use, the necessity of using a large number of materials in compounding is entirely done away with. Such materials as ground bone, tankage, dry ground fish, dried blood, acid phosphate, etc., are not needed, since the Peruvian Guano furnishes all the plant-food elements furnished by these materials, in choicest forms, and already intimately mixed and combined by nature.

A VALUABLE BOOKLET, "PLANT FOOD PROBLEMS,"

80 pages, FREE FOR ASKING.

THE COE-MORTIMER CO.,

33 BROAD STREET, - CHARLESTON, S. C.

PREPARED LIME THAT CAN BE DRILLED WITH THE SEED.

We are manufacturing a specially prepared Agricultural Lime, packed in 50 lb. sacks. 200 lbs will go as far as 400 lbs. of ordinary air slaked lime; does not heat the seed; can be drilled with it where it will do the most good.

Address **Rockbridge Lime & Stone Co.,**
Lexington, Va.

thicken and pour into a dish lined with thin slices of toasted bread.

Asparagus as a Salad.

Select stalks of uniform size and length, boil till tender in water, with a little salt in it. Take out and let the water drain off; wipe dry and put on ice. Serve for lunch or tea with Mayonnaise.

To Cook Young Beets.

Wash them, but do not break the roots or cut off the tops close, as they will bleed in cooking and lose half their goodness in their good looks. Boil gently for two hours, take them out and slip off the skins and slice. Put in a pan on the stove about two tablespoons of vinegar, one tablespoon of butter, one of sugar, salt and pepper; if the vinegar is strong, weaken it with water. Let it all boil up once, and just before sending the beets to the table, pour this sauce over them. People who have never liked beets, find them delightful, dressed this way.

To Cook Onion.

Take off the outer skins and boil till tender in water, with a teaspoon of salt in it. When they are done, drain off the water and pour over them nearly enough milk to cover, add a spoonful of butter, salt and pepper, and a spoonful of flour dissolved in cold milk. Let it boil and pour over toasted bread. Serve hot.

Rice Pudding.

Soak all night one and a half cups of rice in two quarts of milk. Keep the milk on ice. In the morning, add a cup and a half of sugar, nutmeg and the yolks of five eggs. Set it in the stove and let it cook slowly until done, spread on the whites, beaten light, with half a cup of sugar added, seasoned with lemon. Let it brown and serve cold with cream seasoned with vanilla.

Cocoanut and Almond Cake.

Two and a half cups of powdered sugar, one cup of butter, four cups of flour, whites of seven eggs, beaten stiff, one small cup of rich milk, with a pinch of soda, one grated cocoanut, the juice of a lemon and a teaspoon of the grated rind. Cream the butter and sugar and seasoning together. Add the milk, whites and flour alternately, lastly the cocoanut, folding in if lightly. Bake in four layer cake pans and fill.

Filling.—One pint of milk, the yolks of five eggs, beaten very light, two teaspoons of cornstarch, two heaping tablespoons of sugar, one-half pound of shelled almonds. Blanch and pound the almonds, scald the milk, add the sugar and cornstarch and the eggs, let it thicken, and when it is cold, add the pounded almonds and season with vanilla. Spread between the layers of the cake. CARAVEN.

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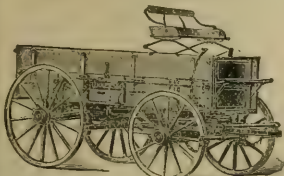
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Tillage and pasturage are the two breasts of the State.--SULLY

67th Year.

Richmond, Va., June, 1906.

No. 6

Farm Management.

WORK FOR THE MONTH.

Since writing our opening article for the May issue (20th April) we have had a continuance of the dry weather which had at that time set in with temperatures both above and below the normal for the month of May. The second week in May was unusually cold for the time of the year and closed with one of the sharpest frosts we have had for several years so late in the season. In the mountain section of the Southwest snow covered the tops of the hills for two or three days. Since that time up to this writing the temperature has been much above the normal and very dry. The result of these severe changes has been adverse to the progress of growth and considerable damage has been done to fruit and early trucking crops. The absence of rain has begun to be seriously felt almost all over the South, especially so as during the whole spring the rainfall has been below normal. Grass and the fall and spring sown grain crops are showing the effects, being short and thin on the ground. The early planted corn makes but slow growth and the dryness of the land has prevented much planting as it is impossible to make a satisfactory seed bed until we have rain. The only land that can be worked down fine is that plowed in fall, winter or the early spring, again emphasizing what we have so often urged, the importance of utilizing the fall and winter months in breaking the land intended to be cropped in the spring. Land plowed in fall and winter and left rough catches and absorbs the rain and holds it for just such a time as this and if

proper care is taken to harrow and work it with the cultivator before the water is dried out sufficient moisture can be conserved to make planting and growth a success even in a very dry season. Land that has been planted should be kept frequently cultivated to conserve the moisture and help the growth of the crop.

The winter wheat crop is reported as 29,623,000 acres, which is nearly 2,000,000 acres less than was reported sown in the fall and about 220,000 acres less than was harvested last year. The average condition on May 1 was 91 as compared with 92 on May 1, 1905, and a ten year average of 85. In Maryland the average condition is 97; in Virginia, 96; in North Carolina, 95; in South Carolina, 92, and in Tennessee, 95. There has no doubt been some impairment of the condition since May 1st all over the country as the weather in all the winter wheat belt has been against the best progress of the crop and the indications are therefore for a less winter wheat crop than that harvested last year. Spring wheat seeding is progressing in the spring wheat sections, but as yet it is not ascertained what the area will be. Indications, however, are not wanting that the area is not likely to be so large as that seeded a year ago. It seems to be quite evident that our wheat area is not growing larger and that the effect of the great increase in the production of wheat in Canada is causing farmers in this country to give pause in wheat production. In Canada the average yield per acre is much in excess of that in this country and the

area of land adapted to the production of the crop is practically unlimited. Immigration is pouring into that country both from Europe and from this country and it would appear that Canada is now likely shortly to become the wheat granary of the world.

Cotton and tobacco plants were seriously injured by the frost of the middle of May and the area of these crops is likely to be reduced as a consequence. Irish potatoes were also badly cut down and the crop will no doubt be materially shortened.

From the foregoing summary of existing conditions it will be seen that if average yields of crops are to be made this year considerable effort will have to be made to utilize to the utmost the opportunities yet available, and even these are not likely to result in complete success unless we have good rains very shortly. Wherever it is possible to go on with the planting of the corn crop no time should be lost in doing so, but it will not be a wise use of time to plant in badly prepared land. Better work the land as far as possible and then wait for a rain before finally fitting it for the seed. On upland it will be good policy to wait even until June and then plant yellow corn instead of white. There are several varieties of yellow corn like the Golden Dent which will mature in much less time than the white. We have known Golden Dent to make an excellent, well-matured crop in this section of Virginia planted as late as the 4th of July. On low grounds many of the white varieties may be planted up to the middle of June with every prospect of success.

In corn already planted the cultivator should be kept running at every opportunity, thus keeping the land covered with a good soil mulch and conserving the moisture. In our May issue, we discussed this subject of cultivation very fully and refer our readers to that issue. Always remember that the object of cultivation is not so much the destruction of weeds as the aeration of the soil and the conservation of moisture. Weed killing should only be incidental to this. Where the corn has been brought to a standstill in growth by the dry weather a top dressing of nitrate of soda applied at the rate of 100 or 150 lbs. to the acre will give it a start again if applied just before or shortly after a rain and will usually be found to be profitable. Nitrate of soda is very soluble and does not require to be cultivated into the

land to do its work. A heavy dew or light rain will dissolve it and carry it to the roots of the plants where it is at once utilized. When working the corn the last time do not forget to sow either cow peas, crimson clover, sapling clover or vetches or a mixture of all these in the crop. The will shade the land, make fall and winter grazing, a cover for the land during winter and provide a fallow to turn under for the next crop. As the corn tassels out look out for the barren stalks and cut off the tassels before the pollen is shed and thus prevent pollenization by and production of these barren stalks. They are one great cause of short yields of corn and should be prevented.

In our last issue we wrote fully on the cultivation of the cotton crop and to that issue refer our readers. Where the crop was injured by the frost of May, it will require careful nursing and cultivation to start growth again, and it may be necessary to replant in some cases. Where this is the case freshen up the rows with the cultivator or hoe before replanting.

The setting out of the tobacco crop should be completed as soon as possible. The dry weather has hindered the progress of this work during the past month and made it difficult to secure good stands. Plants were kept backward in growth by the cold weather of March and are not as vigorous and thrifty as could be wished, hence, they will require careful handling to secure a stand. A good rain before setting out the plants would help greatly. After the plants have got hold of the land and started to grow cultivate frequently and work with the hoe around the plants to stimulate the growth and make up for lost time. Look out for the first brood of worms and have them carefully picked off or poisoned by spraying. Spraying with Paris green solution of the strength of 1 pound of Paris green to 160 gallons of water is perfectly safe so far as the crop is concerned during the early period of its growth and gets rid of the worms, but we do not advise it later in the season when the crop is beginning to ripen as it might stain the leaves and prejudice the sale.

Corn and sorghum for the silo should be planted this month. Whilst corn is the crop most largely planted for silage, and it is an excellent one for that purpose, yet sorghum will make equally as good silage and at less cost. We advise that both of these crops should be grown for the silo and they may be

put into the silo either mixed or in alternate layers, but better mixed. Cow peas and soy beans may also be grown for silage purposes and when mixed with the corn or sorghum as put into the silo they make a better balanced ration than corn or sorghum alone. Cow peas may be grown with the corn or sorghum, but the soy beans are better grown alone and mixed as cut into the silo. Corn or sorghum intended for silage should be planted in rows about 3 feet apart and be dropped 4 to 6 inches apart in the rows. The crop should be cultivated two or three times and if cow peas are intended to be put into the silo with the corn or sorghum they should be planted at the second working of the crop, being dropped along side the rows at the rate of from one-half to a bushel per acre. The vines will then run up the stalks and can be harvested at the same time. The Whip-poor-will pea is a good one to use for this purpose as the vines keep closer to the stalks than the Black or the Clay and hence are easier to cut and handle. If you have no silo into which to put these crops you ought to make an effort to build one at once even if you have only half a dozen cattle to feed. A silo is the cheapest barn a man can build and preserves the feed put into it in the best shape for feeding and it is feed that can be fed to all kinds of stock with advantage. We have repeatedly given instructions for the building of a silo and will endeavor to do so again in an early issue. From 10 to 15 tons of corn or sorghum per acre can be easily grown and if peas be grown with the crop they will usually add about 25 per cent to the yield. Corn or sorghum silage can be raised and put into the silo for about \$2.00 per ton and a silo can be built for \$1.00 per ton of capacity. In no other way can feed be so cheaply raised and saved as with a silo.

Last month we urged that attention should be given to the raising of fodder and forage crops for long feed for the stock and gave instructions and advice as to the different crops which could and should be grown. To that issue we refer our readers. However important it was to urge the growing of these forage and fodder crops last month, it is infinitely more so now as the drouth has seriously lessened the yield of both hay clover and oats and there will be need for other crops to make good this deficiency. See to it that land is prepared well for these crops as soon as possible after the corn is planted and if not in a good state of fertility give an application of 200 or 300 lbs. of acid phosphate per acre. Soy

beans should be planted first as they have a longer period of growth than cow peas or sorghum. For cutting for hay the beans may be sowed broadcast at the rate of 1 or 1 1-2 bushels to the acre, but for seed they should be planted in rows 2 feet 6 inches apart and be dropped 4 to 5 inches apart in the rows. We have had several inquiries recently as to whether the report published in the last issue giving the best yield of soy beans at the Blacksburg Experiment Station at 16.25 bushels per acre, may be taken as the average yield of this crop in the State. In reply we would say that for the middle, eastern and southern sections of this State we have had yields of from 25 to 40 bushels per acre reported to us and the average crop should not be less than 30 bushels. Blacksburg is too high on the mountains for this crop to make its best success there. We think very highly of it both as a forage and a grain crop and it ought to be much more largely grown than it is all through the South. It is richer in protein than any of the other forage crops and is easier to cure and save than cow peas or clover. Cowpeas or cowpeas and sorghum should be sown or drilled on all vacant land during this and the following month. They should be planted on all oat and wheat fields as soon as the grain has been cut except where grass and clover have been sown in the grain and is making a stand. Cut the stubble with a disc harrow in both directions and sow one bushel of peas per acre broadcast or drill half a bushel in rows 2 feet 6 or 3 feet apart. When planted in drill they should be cultivated two or three times. Even if not wanted for feed the crop will pay for growing to plow down as an improver. Cowpeas and sorghum mixed or cowpeas and soy beans mixed make an excellent hay. Millet should be sown for hay this month and next. Make the land fine and sow 1 bushel of seed per acre. Cut before the seed forms, and the hay can be fed safely to all kinds of stock. Some farmers grow cow peas with millet and claim that it makes a good crop of better feed than millet grown alone. No doubt the cow peas will improve the nutritive value of the feed, but millet matures too quickly for the best results to be got from the cow peas.

The harvesting of the wheat and oat crops will call for attention before our next issue is out. See to it that the binder and mower and all other harvesting machines are at once overhauled and put into thorough working order, and if any repairs are wanted have them ordered at once and thus be pre-

pared to start into the field as soon as the crop is ready for cutting. Don't let crops stand until over-ripe. A better sample will be made and much loss from shattering will be avoided if cut just before becoming dead ripe. See to it that you have hands sufficient to keep up to the machines and have all cut grain shocked before leaving the field at night. Be careful in shocking to keep the center of the shock well filled with the slope of the sheaves to the outside and cap well. A shock can be made that will turn rain for a long time with sheaves fresh from the binder, but if they have been carelessly shocked once they can never be put up again so that they will turn rain.

The cutting and curing of clover and meadow hay crops will also require attention. These crops are in their prime for making the best and most hay just when coming into full bloom. Every day they stand after this time they become less nutritious and lighter in weight. As the seed forms the nutritive qualities of the plant are absorbed into it and the stalks and leaves become little better than dry fibre. Cut therefore just before the seed forms and thus have the nutritive value in the leaves and stalks. Cut when free from rain or dew and do not allow the crop to lie broadcast in the hot sun and drying wind until all the moisture is dried out of it and nothing but woody fibre is left. As soon as the clover and grass is well wilted but before the leaves are dry enough to fall off when handled the crop should be drawn into windrow and be left in that condition for the wind and sun to draw through it and further reduce the wasting elements in the plants but largely protected from the scorching rays of the sun. If rain or heavy dew threatens put up into small cocks in the evening and let stand overnight and if necessary the next day. Then after the dew is off the cocks and the ground the following day open out the cocks and especially be careful to spread out the bottom of the cocks that will have absorbed moisture from the ground and let the sun and wind dry out the hay and thoroughly warm it. If the weather be good, the hay in the evening will be ready to put up into large cocks or if the crop be not a heavy one, will be ready for the barn. Nothing but practical experience can determine whether the hay is sufficiently dry to be hauled to the barn, but if all rain or dew is dried out of the hay we would rather put it in the barn a little under-cured than over-dried. In this condition it will heat in the mow and be browner than if over-dried, but

will be much more nutritious and palatable. If put in the barn with rain or dew on it it will mould and may heat and fire. When hay is stacked out of doors put into large stacks rather than small ones. The waste will be less and the hay more palatable.

CORN OR FODDER, WHICH?

Editor Southern Planter:

The corn growers of this country are now suffering from what may appropriately be called the ensilage habit. I do not question the value of ensilage, but unfortunately the growth of corn for silage has exerted an injurious influence on the crop grown for other uses. It has tended to belittle the importance of the ear and to increase the desire for large stalks with much foliage. In the southern corn section nature tends in the same direction, with the result of enormous stalks bearing comparatively little ears. The general result has been the development of fodder at the expense of grain. This has been only partly counteracted by the recent active campaign for corn improvement. There is now a noticeable cry of too much stalk instead of ears. There is a great demand for a change from this condition. There are practical means by which the present character of the crop may be reversed and ears be produced in excess of stalk. Both natural and artificial means have contributed to the present condition; both may be effectively used in producing the desired change.

Vigorous growth of the crop must be provided for, but the character and time of growth must be largely controlled. Deep breaking, or preparatory plowing, is necessary. This is particularly necessary if much vegetation is to be turned under. The breaking should always be deeper than that for the previous crop. The increase may usually safely equal one-quarter of the depth of the previous plowing. This gives a depth of soil for cultivation which will enable the crop to make rapid growth when the time for that growth comes, essential to the success of the methods proposed. Wherever possible, the system of level culture should be followed. Well selected, vigorous seed of an approved variety should be planted.

The most radical change from common practice is needed in the method of fertilizing the crop. It is very important that the application should consist chiefly of phosphoric acid and potash. It should under no circumstances contain more than one-half of the nitrogen intended, as the entire application for the crop. The proportion of phosphoric acid

should be only about one-half as much as is contained in the average mixed fertilizer. The amount of potash should be proportionately increased. About 500 lbs. of a mixture containing: Nitrogen 2 per cent., phosphoric acid 4 per cent. and potash 8 per cent. will best meet the average conditions.

The next important change required is the method of planting. We want many ears of corn, but many ears are not possible without many stalks. Plenty of seed, a thick stand, is indispensable. This is best secured by wide rows and many stalks in the row. A distance of six feet between the rows will be found most generally convenient. The stalks in the rows should finally stand from one to one and one-half feet apart. The crop thus started is ready for cultivation. The weeder or harrow should be used just before the blades appear, or as soon as the first crop of weeds break the ground. This should be continued often enough to keep the weeds down, till the crop is about 10 or 12 inches high. It should then be given its first plowing, or real cultivation, and be thinned to the desired stand. This working may be comparatively deep.

The object in view, ears instead of stalks, now demands a radical change from common methods. Let the corn alone. Repeated working at this stage tends toward rapid and rank growth; this is exactly what should be avoided. The growth of stalks must be retarded; the crop must receive a decided check. It should not be again worked until the plants show the effects of neglect; they will become hardened and discouraged from growing too large. Wait until you have a sorry looking crop on your hands and begin to feel ashamed of yourself. Then start in to make the ears of corn you are after. The stalks should now be about 18 inches high and the time for the most important step in the ear development has arrived.

Reproduction is the strongest tendency in the vegetable world. Notice the persistency with which a diseased or injured tree will bloom, how it will strive, out of season, to perpetuate its kind and expend its vitality in an effort to reproduce fruit and seed before its own end. The sickly, weak or stunted plant makes the same effort. The ear of corn is the plant's means of reproduction; if its natural growth is checked, it bends its energies towards self-perpetuation. The entire method we have followed consists simply of taking advantage of this natural tendency of the plant.

The crop is now ready to make ears and its effort

can be aided and rapid growth forced. More nitrogen is necessary for this purposes. 150 lbs. of nitrate of soda should be cultivated in between the rows. The result will be quick, vigorous growth with greatly increased yield of ears. The growth will be of a different character than that, had all the nitrate been applied in the early growth of the plant, and the result will be large shapely ears of quality, since the potash and phosphoric acid applied earlier in the season will provide the necessary mineral elements for properly maturing and ripening the seed.

These suggestions, practically applied, have often more than doubled the yield of corn in a single year, besides improving the permanent fertility of the land.

H. E. STOCKBRIDGE.

Whilst out of courtesy to Professor Stockbridge we publish this communication, we are not able to concur in his advice. It is practically the same method of making the corn crop as we commented on last month in our article on "Work for the Month." We are satisfied from numerous experiments made in this and adjoining States that phosphoric acid and not potash is the controlling factor in the making of the corn crop. The tendency to stalk production at the expense of ears should be controlled by seed selection and not by stunting the growth of the crop. Seed selection has successfully overcome the tendency to excessive stalk growth and the result has been heavy large ears. There is too much risk involved in practicing the stunting method in the South where we often have a partial drouth in the summer months. The stunted crop caught in one of these drouths would stand a poor chance of making a crop.—Ed.

COW PEAS (*VIGNA SINENSIS*).

The cow pea belongs to the Leguminosae family and is closely kin to the vetch, peas, beans, etc. Like all legumes it has the power of gathering atmospheric nitrogen through the bacteria which live in the nodules on its roots. It is therefore one of the best soil improving crops known, and its cultivation cannot be too strongly urged on our farmers for it provides a hay of excellent quality which can often be fed as a substitute for a part of the wheat bran, corn or oats so commonly fed to beef and dairy cattle, thus reducing the cost of making a gallon of milk or a pound of beef as the case may be.

The land for cow peas should be carefully prepared and well fertilized though it is seldom necessary to

supply nitrogen. When inoculation is advisable an artificial culture may be used, or 200 to 500 pounds of soil from a field where cow peas have grown successfully before. 200 pounds of high grade acid phosphate, basic slag, or 300 pounds of bone meal with 200 to 300 pounds of unleached wood ashes or 50 pounds of muriate or sulphate of potash will make a good application of fertilizer to use on cow peas. The cow pea is adapted to a great variety of soils and if the seed is obtained from local sources it thrives well from the coastal plain to an elevation of 2,500 feet above sea level. Cow peas may be broadcasted or sown in drills 24 inches apart by stopping up two out of every three of the tubes on an ordinary grain drill. When drilled use from three pecks to a bushel per acre, and when broadcasted from a bushel and a half to two bushels.

Some of the best varieties of cow peas to grow are Warren's Extra Early, New Era, Whippoorwill, Lady, Red Ripper, Crowder, Black, Iron, Clay and Wonderful or Unknown. The New Era, Black, Clay and Whippoorwill are among the best varieties to grow for seed. Cow peas will yield from 10 to 25 bushels of grain per acre and from 1 1-2 to 3 1-2 tons of hay. The feeding value of well cured cow pea hay cannot be emphasized too strongly and the grain is valuable as an adjunct in feeding beef and dairy cattle and swine. The high price of the grain has prevented its general use for this purpose.

The value of the cow pea as a green manure lies in the fact that it will gather from 75 to 125 pounds of nitrogen per acre from the air. By plowing under the entire crop as much as \$15 worth of nitrogen can be added to an acre of land. A crop of cow peas if plowed under when nearly matured will not sour the land, but will improve its mechanical condition wonderfully and increase its crop yielding capacity. The increase sometimes amounts to 10 bushels of wheat and 20 to 25 bushels of corn. In the dark tobacco belt cow peas can be brought into the rotation and used for soil building purposes with marked advantage. Cowpea hay will cost from \$2.50 to \$4.00 per ton and will bring from \$12.00 to \$15.00 a ton in most markets. Cowpeas can be utilized for grazing by hogs and cattle with most satisfactory results. They can also be grown with corn and sorghum for silage purposes.

Why not utilize this valuable crop more generally?

ANDREW M. SOULE.

Virginia Experiment Station.

ALFALFA GROWING IN VIRGINIA.

Editor Southern Planter:

Please find inclosed a photograph of a field of alfalfa as cut for hay the first day of this month (May, 1906,) making 2,250 lbs. of nice, clean, well-cured hay per acre, actual weight. I bought this land six years ago and did not save the first crop of pea hay as it was too short and thin. The land had been worn out with tobacco and corn. The fall of 1904 I sent you a "photo" of the same field showing pea hay stacked which gave me about three tons to the acre. This land has been making me one crop of wheat and one crop of pea hay every year for the past six years; with help of phosphate and potash. The potash being applied every other year.

After the 1904 crop of peas was stacked I applied lime at the rate of about one ton per acre, working it in with the harrow, seeding to wheat. After the wheat was cut, the land was plowed deep and a heavy coating of stable manure applied, and then the land was disced every two weeks until Sept. 13, when 20 lbs. alfalfa seed to the acre was sown by hand two ways and dragged with light harrow, and then rolled. I failed to state that just two weeks before seeding I applied 200 lbs. bone meal and 200 lbs. 16 per cent. phosphate per acre, and about 1,000 lbs. ashes that I had saved for the purpose.

I had also inoculated the seed. The bacteria or preparation was secured from the Blacksburg College at a cost of 25 cents per acre.

This spring about the 1st of April I applied 100 lbs. nitrate of soda to three-fourths of an acre, but strange to say could see no difference in the yield.

I do not claim the above is a remarkable yield, but write this simply to show my experience and that our "worn out" lands can be made to produce fair crops without a great outlay of money.

Think it a good plan to exchange our ideas and plans as is being done through the "Planter".

D. F. DUNLOP.

Henry Co., Va.

The photograph sent is so dark that we are unable to get a satisfactory plate from which to print. We regret this as it shows a fine lot of hay in the field. We hope our correspondent will keep account of his later cuttings from this field and let us have them for publication so that it may be of record what this "old worn-out field" is capable of producing under proper management.—Ed.

Trucking, Garden and Orchard.

WORK FOR THE MONTH.

June is one of the busiest months of the year for the trucker and gardener. The shipping and marketing of the fall and early spring planted crops, the cultivation of the later spring planted crops, the planting of the summer crops and the gathering and shipping of the berry crops all demand attention. Upon the wise distribution of his time in the doing of these various things will largely depend the profit which will result from the year's work.

See to it that all products shipped are sent out in the best condition possible and in new, attractive packages. Cull the products well and keep all inferior goods at home or ship them for what they are and apart from the perfect goods. Only in this way can the best prices be had and a reputation be got which alone will go a long way to make business and make it profitable. Don't top off inferior goods with a few choice ones but let each shipment be uniform throughout, and mark the grades plainly on the packages with the name of shipper and place of growth.

Successional crops of beans, peas, corn, melons, cantelopes, cucumbers, squashes, peppers, tomatoes and egg plant should be set out at once and the earliest planted ones should have frequent cultivation to keep them growing. The disastrous frost of the middle of May has we hear cut off many of the first planted crops. Where the damage done was so great as to practically destroy a large part of the planting it will be a waste of time to endeavor to make a crop from such a stand. Better begin over again and substitute some other crop, or, if possible, get new plants to set out the whole plot. Work the land over again and put in good order before planting. Where Irish potatoes have been cut off it may in many cases be better to plow up the crop and plant next month for a fall crop. Where the crop was not so severely injured as to compel re-planting give a top dressing of nitrate of soda at the rate of 150 lbs. to the acre, sowing the same down each side of the rows and cultivate frequently. This will stimulate a new growth.

Look out for the potato bugs and give a dressing of Paris green as soon as the first are seen. If there are any indications of blight on the Irish potatoes give

a spraying of Bordeaux mixture and repeat once or twice. This will check the spread of the disease and will help the yield of the crop. Spraying seven times at a cost of \$10 per acre has resulted in an increase of 123 bushels to the acre.

Plant a hill of corn every few yards amongst the tomatoe plants. This will save the tomatoes from the worms, which prefer corn to feed on. The corn can be cut with the worms on it and be fed to stock. Mustard sowed amongst the cabbage and other plants of the same family will save them from terapin bugs. These will settle on the mustard and can there be killed with kerosene. Melons and cucumbers can largely be protected from the melon louse by dusting them with bone meal when wet with dew.

Sweet potatoes should be planted out at once. A sandy loam soil is the best for this crop and a good fertilizer for it may be made by mixing 150 lbs. of nitrate of soda, 350 lbs. of acid phosphate and 150 lbs. of muriate of potash, applying this quantity on one acre if the land is poor, and using less if the land is already in a fair condition.

After the strawberry crop has been gathered, if the bed is 2 years or more old plow up and sow cow peas on the land and prepare other land for planting in the fall. Land which has grown Irish potatoes will usually make a good place to grow strawberries. If the bed is only a year old and is to stand for another year's crop, mow off the leaves and sprinkle some straw on them and set them on fire. This will destroy insects and fungoid spores.

PROPOSED LAW FOR THE PROTECTION OF SHIPPERS OF AGRICULTURAL AND HORTICULTURAL PRODUCTS.

Our attention has been drawn to a bill which has been introduced in the Senate at Washington for the protection of shippers of agricultural and horticultural products which appears to be deserving of the hearty support of all farmers and truckers. The bill has been read twice and has been referred to the Committee on Agriculture and we are led to believe that if vigorous action be taken its passage can be secured during the present session. We would urge all farmers and truckers to write their senators and

representatives at once and ask their support of the measure. The following is a copy of the Bill:

A BILL

Providing for an inspection of certain agricultural products, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of Agriculture be, and is hereby, authorized and directed, under such rules and regulations as he may prescribe, to examine and inspect at the place of final destination fruits, berries, vegetables, potatoes, and melons shipped from any State or Territory in the United States to the District of Columbia or any other State or Territory of the United States. The inspectors and subinspectors appointed by the Secretary of Agriculture to make such examination and inspection shall be located at as many of the centers to which fruits, berries, vegetables, potatoes, and melons are shipped as may in the judgment of said Secretary be practicable, and it shall be the duty of said inspectors upon the arrival at said centers of cargoes of fruits, berries, vegetables, potatoes, and melons, transported thence from another State or Territory of the United States, to examine and inspect such cargoes or parts of cargoes as the consignee or consignees thereof shall claim and so report to said inspector to be damaged or in bad condition, for the purpose of ascertaining whether the same is in marketable condition, and if in marketable condition, whether damaged or not. That it shall be the duty of the said inspector to give to the consignee of such products a certificate in duplicate containing the result of such inspection, and the said consignee shall transmit to the consignor with his remittance of the proceeds of the sale of said products either the original or duplicate of said certificate; and any consignee of such cargoes alleged to be damaged who shall willfully fail to report the same for inspection, or who, having caused the same to be inspected, shall fail to transmit a copy of the inspection furnished him by the inspector to said consignor as herein required, shall be guilty of a misdemeanor, and upon conviction shall be fined not less than one hundred dollars and not more than three hundred dollars, or imprisoned not less than two months nor more than six months, or both, at the discretion of the court; and any consignee of such cargoes having failed to report same for inspection, or

having reported same for inspection shall fail to transmit to his consignor the certificate of inspection, as provided in this Act, shall represent to his consignor that said cargo was received in bad and unmarketable condition shall, in any indictment under this Act for such failure, be presumed to have made such representation falsely and for the purpose of defrauding his said consignor.

SEC. 2. That it shall be the duty of all commission merchants or other persons receiving by consignment for sale fruits, berries, vegetables, potatoes, or melons shipped from our State or Territory of the United States to the District of Columbia or any other State or Territory of the United States, to keep a book or books, wherein shall be recorded a truthful account of the receipt, sale, amount realized from sale of such products, and to whom sold, which said book or books shall be at all times open for the inspection and examination of the inspectors provided in this Act; and any such commission merchant or consignee who shall make a false entry in said book or books, for the purpose of cheating or defrauding the consignor of said products or misleading or deceiving said inspectors, shall be guilty of misdemeanor and upon conviction shall be fined not less than one hundred dollars nor more than three hundred dollars, or imprisoned not less than two months nor more than six months, or both, at the discretion of the court.

SEC. 3. That if the consignee of any fruit, vegetables, potatoes, or melons shipped from one State or Territory of the United States to the District of Columbia or to any other State or Territory of the United States, shall willfully make a false report to his consignor as to the condition of said consignment when received by him and the price at which the same was sold by him, or shall fail to account for and pay to the said consignor the amount at which the same was sold less actual charges and commissions for selling and handling the same, or if he shall falsely or fraudulently misrepresent any fact concerning the condition and sale of said consignment, he shall be fined not less than two hundred dollars nor more than one thousand dollars, or imprisoned not less than six months nor more than two years, or both, at the discretion of the court.

SEC. 4. That there is hereby appropriated out of any money in the Treasury not otherwise appropriated, the sum of twenty-five thousand dollars, to be expended for all necessary expenses to comply with the provisions of this Act under the direction of the Secretary of Agriculture.

Live Stock and Dairy.

HOLSTEIN FRIESIAN CATTLE IN VIRGINIA.

Amongst the various breeds of dairy cattle which are kept in this country, there is no one breed which seems to have responded so quickly to the efforts made by breeders to improve the quality of the milk in respect to the quantity of butter fat contained therein, as the Holsteins. These cattle have been for generations great milk producers, but the quality of the milk has always ranked low in butter fat. They have been the greatest milk producers, but the quality has always been barely sufficient to pass the tests imposed by sanitary authorities controlling the milk supply of the large cities; indeed, many dealers have been charged with selling adulterated milk when supplying strictly pure Holstein milk; and, to get over this difficulty, they have had to keep a few Jerseys in the herd to bring up the milk supplied to the point required in fat content. This has militated against the breed, and to meet this difficulty, the Holstein Association, with the co-operation of the largest breeders, has, for several years, given close attention to the necessity for improving the quality of the milk by selection of dams and sires from the strains of the breed which have shown themselves producers of a richer quality of milk. These efforts have been rewarded with remarkable success, and this without in any way detracting from the milk producing capacity of the breed, and as a result of this, we look to see an early general improvement in the quality of Holstein milk. In the recent reports received from the advanced registry of the Association, there are several remarkable records illustrating the success of the work done. In the list of cows tested from April 10th to April 23rd, one cow—Alcartra Polkadot—made a record of 23.268 pounds of fat from 597.1 pounds of milk in seven days, and 96.130 pounds of fat from 2,605 pounds of milk in thirty days. This cow produced 12.654 pounds of fat at 2 years; 17.28 pounds at three years; 20.222 pounds at 4 years; 21.723 pounds at five years, and 23.268 pounds at six years. 1,300 quarts of milk, containing sufficient fat to make 112 pounds of creamery butter, in thirty days, is a yield unattainable by any but a Holstein. In the list of cows tested from April 24th to May 5th, Pietje 22nd made a 120 day record of 316.3 pounds of fat from 9287.5 pounds of milk, breaking all official records made by any cows of any breed for

that length of time. At St. Louis, the 12 year old Holstein cow—Shadybrook Gerben—surpassed the best Jersey by over 2 pounds of fat, and now Pietje 22nd surpasses Shadybrook Gerben by about 33 pounds of butter fat. Her half year's record of 153.345 pounds of butter fat from 13,673 pounds of milk is so far to the front that there is nothing to compare with it; 6,512 quarts of milk containing fat enough to make 529 pounds of the best butter.

In connection with this record of what this breed is now doing, we invite the attention of our readers to the advertisements in recent issues of Dr. Saml. A. Robinson, of Covesville, Albemarle county, Va., who is building up one of the finest herds of Holsteins in the country. He has spent much time and money in selecting the bulls and cows forming the foundation of his herd, and has gotten together a number of the finest animals from the record-making herds of this country. Amongst his cows are Jessie Veeman A., the winner of the championship and the first prize at New York State Fair in 1903, with a record of 26.25 pounds of butter in seven days, and a daily milk production of over 83 pounds. Jessie Veeman Hengerveld, a daughter of Jessie Veeman A, with a record, at three years old, of 16.8 pounds of butter in seven days, and at four years old a record of 20.33 pounds of butter in seven days. Joe Bach Josephine—another member of the herd—is one of the five cows which won the dual purpose test at St. Louis in 1904. Her record is 23.83 pounds of butter in seven days. The bulls heading the herd are all from great butter-producing dams, and, by bulls, tracing to the greatest producers in the breed. With such a herd as this in the South from which to select animals to head herds now making good records, or herds which may be founded to supply the demand for milk and butter, which is daily becoming larger in every city in the South, there is no reason why our farmers should go far a-field to make their purchases. They can go and see the cows and make their selections in their own State. Dr. Robinson is an enthusiast in his devotion to the Holstein cow, and his enthusiasm is founded on scientific study of the peculiar qualities of Holstein milk, which became incumbent on him as a medical expert in New York City. He has satisfied himself, by innumerable tests, that Holstein milk possesses qualities for building up healthy and strong human beings possessed by

no other breed, and that calves of other breeds raised on this milk will make more growth and be healthier and stronger than when fed the milk of their own dams.

SHORTHORN COW'S DAIRY RECORD.

A. L. Haecker, dairy husbandman at Nebraska Experiment Station, reports that the pure-bred Shorthorn cow, Florence Airdrie 6th, owned by the experiment station, has just completed a year's milk and butter record. She produced, between April 7, 1905, and April 7, 1906, 10,487 pounds of milk, 413.01 pounds of butter fat, and 481.84 pounds of butter. Her average test was 3.94 and she was with calf during the last six months of her lactation.

Florence was purchased from William Ernst, of Nebraska, on April 20, 1903, and from that date her milk and butter records are as follows:

Year—	Milk lbs.	Butter fat, lbs.	Butter lbs.
1903	7,537.5	358.51	418.26
1904	7,112.5	316.03	368.70
1905	10,187.0	413.01	481.84
Total, 3 yrs.,	25,137.0	1,087.55	1,268.80
Av. for 3 years	8,379.0	362.51	422.93

She was born June 20, 1898, being now about eight years old and in her prime. If she retains her normal condition, she will no doubt produce a larger record next year. During the three years she has dropped three bull calves and is due to freshen again in July of this year.

MAINTAINING WORK TEAMS.

Editor Southern Planter;

The large increase in inquiries concerning the feeding and maintenance of horses and mules shows that much more interest is being taken in this important phase of animal nutrition than was formerly the case. This is certainly encouraging, for, as a matter of fact, less attention has been given to the proper feeding and maintenance of the teams than to any other class of animals on the farm. Yet it is quite clear that for reasons of economy, this condition should be reversed. It is quite evident that horses and mules are often subjected to great discomfort by reason of the unsatisfactory rations which they are forced to consume, and it is a well-known fact that the utility of work stock is measured largely by the variety, character and suitability of the food con-

sumed. It is strange that an animal of such marked intelligence as the horse and one which, in a large measure, has been a companion of mankind from the earliest ages, is often fed rations which are, to say the least, ill-suited to his needs and subject him to many bodily discomforts, requiring, as they do, the consumption of a considerable part of his energies in order to properly digest and assimilate them; whereas, if better suited to his needs, they would stimulate the nerve centers, and, of necessity, enable him to do a greater amount of work with less strain on his digestive machinery. Now, as a matter of fact, the horse is simply an intelligent machine for man's convenience. Therefore, the owner should make every effort to handle this machine with the greatest skill in order that there will be no loss of energy by friction, and the machine will then, of necessity, last longer and do more efficient work. Comfort and adaptability are two points to which special attention should be given in the selection of a ration for horses and mules.

The subject of horse feeding may be appropriately considered from the following standpoints: First, suitable forms of hay, fodder and other roughness; second, natural and artificial pastures; third, grain, meal and by-products.

The form of roughness most widely used for horses is timothy hay, which, in itself, is all right, not because of its high nutritive qualities, but because of its freedom from dust and the relish with which it is eaten by horses. Unfortunately, however, timothy hay is a one-sided food which does not meet all the requirements of the horse, and, moreover, it is often very expensive and hard to procure. The fondness for it on the part of horsemen, however, is, indeed, remarkable and has led to a neglect of many other foodstuffs which might be used with marked advantage from the standpoint of economy and suitability.

Good mixed hay, when free from dust, is quite as satisfactory as timothy and is even better adapted to the needs of the horse if it contains a fair amount of clover, as this helps to maintain the body in equilibrium by supplying protein. Then, there is no reason why red clover, which grows over such a wide section of the country, should not be used to advantage. If a little more attention was given to the curing of clover in a semi-green condition, so as to avoid its being as dusty as is ordinarily the case, it could be fed to horses and mules with greater satisfaction than timothy hay. Of course, dusty clover

hay is objectionable for reasons too well known to be discussed here. Alfalfa hay is even better in many respects for horses than red clover, if it is not made the exclusive ration, and cowpea hay, soy bean hay and vetch hay can all be used in certain sections of the country to marked advantage to provide at least a part if not all the roughness for horses.

It has been quite clearly shown that these hays, which are naturally rich in protein, will enable the owner of the horse to cut down the amount of concentrated foodstuffs he has hitherto found it necessary to feed. Hence, the utilization of these legumes is a matter of vast economic importance in many sections of the country where timothy and mixed hay cannot be produced to advantage and where concentrates, other than corn and oats, are particularly high.

Then, millet hay, if cut in the season before the seed forms, makes an excellent food for horses. Straw, particularly that from oats, can often be utilized to provide part of the roughness needed for horses, especially in the winter time when they are often doing very little work. It is better to utilize the straw in this way and get its full value and give a needed variety to the ration, rather than allow it to waste, as is too frequently the case, because it is not thought to have any value as a foodstuff for horses. The list of suitable forms of roughness for horses may be widened considerably by the use of winter and spring grown cereals. For instance, the hairy vetch, or oats and wheat, sown together, provide a most excellent hay for horses, and as these crops do so well in many places where mixed hays are expensive, it is surprising that they are not utilized more extensively. Oats may be made into hay by themselves and give a desirable variety to the menu. Then, sorghum may be grown in drills and cut and bound with a corn harvester and fed whole, or after running through a cutting box, and it is safe to say that the true nutritive value of shredded corn stover as a roughness for horses is not clearly appreciated, or else thousands of acres of this valuable food would not be allowed to go to waste in the field each year, and the horses and other classes of stock be kept on short rations.

Still another form of roughness can be utilized in moderate quantities to advantage for horses, particularly in the winter season; namely, silage. Good, sweet corn silage made from a well-matured crop, or even that obtained from sorghum, will give variety and palatability to the ration and help to keep the

digestive tract in excellent condition and add to the general thrift and vigor of the horse. Most persons who have attempted to feed silage used too much. This is a great mistake. No more than half of the roughness should consist of silage, the balance preferably, to be made up of some good, rich leguminous hay. The amount of roughness fed to a horse is often in excess of its needs. It is useless to burden the digestive tract. It would be infinitely better if less timothy, corn stover, sorghum fodder and straw were utilized, and more clover, cowpea or wheat and vetch hay used. This does not mean that the coarser forms of roughness, which are more difficult of digestion and low in nutritive qualities, may be neglected, but if fed in conjunction with the leguminous hays, much better results will be obtained and cheaper rations provided, which, after all, is a very important matter to the farmer. In many sections of the country, it is doubtful if a more costly ration than timothy or mixed hay could be fed. In these same places, however, a judicious combination of corn stover and sorghum and legumes with silage would reduce the daily cost by one-third or one-half and give better results than are now obtained from the use of expensive hays.

Suitable pastures should be provided whenever possible. It gives the horse a rest and change to be turned out at night. In the far South, Bermuda will from an almost ideal pasture if kept grazed quite closely, and, over vast sections of the country, blue grass and clover, either red or alfalfa, may be utilized to advantage, while in many other places, orchard grass and tall oat grass will provide an admirable substitute for blue grass and Bermuda. Thus, in almost any section, suitable grazing can be had during a good part of the year, and if the horses and mules can be turned out to rest and refresh themselves at night and get some succulent food, they will keep in better condition and do more satisfactory work, and besides that, the amount of concentrates required can be reduced and effect a saving in the feed bill, which is an important item.

As in the case of roughness, a wide range of concentrates can be fed with satisfaction to horses. At the present time, corn and oats constitute the two principal grains fed to this class of stock. It is generally admitted that oats are more satisfactory for horses than corn, though a combination of the two is probably better than either one alone. Corn, of itself, is too heating a food to be fed exclusively to horses, and particularly is this true in the warm climates. As a result, the ration, of itself, is enervat-

ing to the animal and no effort should be spared to change a ration which in any way affects the efficiency of the animal consuming it.

Provided that either corn or oats are not available, there is no reason why a suitable ration of concentrates should not be prepared. Of course, either one of these foodstuffs will, of necessity, form the basis of the ration. Corn, of itself, may be fed in one of three forms—either shelled, on the ear, or as corn and cob meal, which should be finely ground. Bran forms a desirable and suitable addition to the ration for horses. It is cooling and soothing in its action. When wheat is cheap enough, that is, at a lower cost per bushel than corn, it can be fed in moderate quantities to horses with most excellent results. Then, gluten meal, which is rich in protein, may be combined with corn, bran and oats to advantage. Large quantities of the highly concentrated protein foods should not be fed, but two pounds of linseed meal or cotton seed meal will prove an excellent addition to the ration, and, while cotton seed meal may not always be eaten with relish in the beginning, most horses soon become very fond of it. The addition of 2 or 3 pounds of these concentrated protein foods gives a variety to the ration and reduces the necessity for feeding such large amounts of a heating and fattening food like corn, and experience has shown that animals will do better on such a ration than on corn alone.

Other foodstuffs which may be fed in moderate quantities with corn are middlings and various forms of low-grade flours, and, in the South, cowpeas and soy beans, in amounts of 2 to 4 pounds, will provide an admirable ration when combined with corn, bran or cotton seed meal. Another foodstuff, concentrated in its nature and a product of the slaughter house, which may be added to the ration in small quantities with advantage, is tankage. One pound of tankage per day is sufficient to feed.

Below is a table giving some practical rations for horses and mules weighing, approximately, 1,000 lbs. A study of the tabulation is well worth while, for it is quite evident that many forms of concentrates or roughness are either produced on our farms and not utilized, or may easily be had, and almost endless combinations of these may be made. By making a calculation of the cost of the various foodstuffs, and then figuring out some combinations which will give you a nutritive ratio of 1.6 to 1.9, you can easily determine which will be the cheapest and best for you to utilize in the maintenance of your farm work

stock. Rations may be compounded from the foodstuffs enumerated, which will prove highly satisfactory for horses and mules, at a cost of 15 to 30 cents a day, and it certainly is an important matter to keep your work stock in the best condition with the least waste of energy on their part, at half the food cost per day that you might otherwise be called on to meet.

PRACTICAL RATIONS FOR HORSES AND MULES Weighing Approximately 1000 Pounds.

CONCENTRATES	1	2	3	4	5	6	7	8	9	10	11	12
Oats	14		5								5	
Corn, (shelled)	14	7					10			12	5	
Corn, (on ear)								16	16			12
Corn and cob meal				12	12	5						
Bran			2	8					2			2
Wheat						3						
Gluten meal					3					2		
Linseed meal						2				2		
Cotton seed meal					2				1			2
Middlings								4				
Low grade flour											3	
Cowpeas							4					
Soy beans											3	
Tankage								1	1			1

ROUGHNESS

Timothy	16	10										
Mixed hay	16						10		6			
Red Clover						10			8			
Oat hay							10					
Millet			6									
Shr. corn stover			0	15					8			
Sorghum fodder							6			12		
Cowpea hay				10							10	5
Straw		8				5						
Vetch and wheat								5				
Silage										15	20	

Virginia Experiment Station.

ANDREW M. SOULE.

MORE FINE STOCK.

Montview Berkshire Herd Receives Notable Acquisitions.

Manor Faithful, the noted imported Berkshire boar selected personally by Supt. Weston, of Biltmore, as the best specimen of his breed in England, and afterwards brought to Virginia, to head the herd at Congressman Glass' Montview Farms, died of paralysis some weeks ago, aged seven years. This great boar took first prize every time he was exhibited in England. Fortunately, Montview Farms have several of their best sows securely bred to Manor Faithful, so that his progeny will figure largely in

the Montview breeding pens for a long while yet. One of these sows farrowed a litter of twelve splendid pigs ten days after Manor Faithful's death; another farrowed a first litter of nine on May 18th, and a very large Biltmore sow farrowed a litter of twelve on May 21st.

Montview Faithful, the sweepstakes son of old Manor, out of imported Princess Handley, is still retained in the herd of Montview, and is getting pigs of highest quality. This is the young boar that beat his sire at the Interstate Fair last year, with Colonel A. M. Bowman, of Salem, and Major Lindsay, of New Jersey, as judges.

Mr. Glass has promptly replaced Manor Faithful with a finely bred and perfectly marked young boar, from the famous Western herd of N. H. Gentry. This boar is sired by the great Premier Longfellow, the boar that sold for \$2,000 cash last October, being the largest price, at the time, ever paid for a hog of the breed. The dam of this young boar is the best imported sow in the herd of Mr. Gentry, the breeder who swept the prize ring at the St. Louis Exposition. Mr. Gentry writes Montview Farms that the boar bought by Mr. Glass is the better of two animals he had reserved for his own herd, and had, theretofore, refused to price him for any sum.

In addition to this boar, Montview Farms have purchased a magnificent yearling boar, whose breeding finds expression in a remarkable individuality. He has great length and depth and carries his width at the shoulder clear back to his hams with perfect uniformity. This boar is a paternal grandson and maternal great-grandson of the celebrated Lord Premier, whose progeny took ninety-five per cent. of the World's Fair prizes in the show classes, and ninety-nine per cent, in the fat hog exhibits, and who sired more prize winners than any American-bred boar that ever lived. Lord Premier sold for \$1,500 cash when seven years old.

Montview Farms have also strengthened their herd with a perfectly marked young boar of almost faultless construction, tracing to the blood of Manor Faithful on one side and to Storm King on the other. Storm King was a great English prize winner and descended from an unbroken line of prize winners. He was selected for Mr. Fulford, of Maryland, by Secretary Humphrey, of the British Berkshire Record, a breeder of world-wide reputation. His sire was used in the English Royal Agricultural College herd and afterward headed the herd of Queen Victoria at Windsor.

To leave no doubt of his purpose to keep the Montview Berkshire herd in line with the best of the South and East, Mr. Glass has recently purchased eight of the best brood sows he could find in the United States to breed to these fine boars. Conspicuous among them is N. H. Gentry's great sow, Lady Premier 10th, sister to Lord Premier. She is due to farrow July 1st. Of this animal Mr. Gentry writes: "She is possibly the largest, smoothest and deepest sow in my herd, or that I ever bred, and produced some of the show animals with which I won at the St. Louis World's Fair. She is, indeed, a grand sow, a fine breeder, beautifully marked, and weighs, in condition, nearly 900 pounds.

Some of the other sows purchased are granddaughters of Storm King, the great English boar referred to, and of Lord Premier, the noted American-bred boar. Through Ruby strain on the maternal side, they trace to the original Robin Hood 801, bred in England by the Stewart estate, and a progenitor of an unbroken line of Royal Show winners. One of these sows, just a year old May 5th, shows a weight of one and three-quarters pounds for every day she has lived from date of birth. She is perfectly marked and has a conformation in every essential point that is bound to delight the expert Berkshire breeder.

PROVIDE FOR THE COMFORT OF YOUR SHEEP THIS SUMMER.

Editor Southern Planter:

Summer is almost on us. The fleeces are off and the sheep are feeling good now, and growing into flesh every day. It is very likely that your lambs are miserable from the constant nagging of ticks. You ought to have dipped these lambs just as soon as you had taken the fleeces from your ewes, and this would have made a clean sweep of these pests, especially if a second dipping followed, to catch those that had hatched from eggs. I have a simple plan of dipping which will be gladly given to any one desiring it.

The peace and comfort of the ewes will soon be gone, for the gad fly is already preparing for its campaign and the rays of the sun are getting more and more searching.

Few people understand how much the worry of the flies and the worry of the heat interferes with the health and comfort of a flock of sheep. The instinct of the sheep teaches them that the buzz of the gad fly may mean death and so they are alarmed

as one is when he hears the rattle of the diamond-back in the grass. I expect sheep know more about gad flies than most people. They have learned, perhaps, that the flies seek to deposit their larvæ on the nostrils. (They don't lay eggs as most flies, but living grubs or worms.) They know how these grubs, with their hooks and claws, can wriggle up the nose in spite of their sneezing. They know what unendurable itching those nasty grubs cause in the upper nasal passages. They know how they sometimes bore through into the brain cavities and then produce death. If they don't know it all, they have an unerring instinct that tells them to beware. Did you ever see a bunch of sheep gather together with heads down to the ground, each listening intently for a sound, then one of them stamps fiercely and bolts suddenly away, running as if from death, and sometimes dropping to the ground to push the nose into a bunch of grass or into the dust? The buzz of the ever-present gad fly caused it. The very name tells you about the pest. What are you going to do to rid your sheep of those pests? Allow me to suggest two methods which may be used by different persons according to convenience. One is to provide a dark shelter for the flock, where they can find rest during the day. The gad flies won't go into the dark and the sheep will be safe in the shed. The shed must be ventilated, and it must not be crowded. It should be kept as clean as possible. As much as sheep hate the smell of manure, they will take this in preference to the gad flies. The other method is to place the salt troughs against a fence and smear the side next to the fence with pine tar. The sheep will rub this on their nostrils and gad flies don't love this odor any more than you do. Nearly every sheep in the flock will get this tar on their nose. The trouble about the last method is that it only saves the sheep from harboring the gad flies larvæ. The gad flies will still buzz around them and worry them.

The scorching heat of our summer sun is certainly hard on our flocks. I am sure a sheep was made with a strong dislike for sun in the summer time. Any one who has ever tried to photograph sheep will agree with me. It is necessary to have the sun shining right in their faces to get a good photograph, if it is to be a snap-shot. It is impossible to get them to face the sun even in the early morning. They will stick their heads under each other, and will seek to find the shadow of their companions in spite of all you can do. So many of our pasture fields are without good shade. Often, sheep must seek the fence corners as the only cover from the sun. They

will lie on one side of the field in the morning, until the sundrives them out at noon, and then they will huddle together in bunches or seek some cover on the other side of the field. Such treatment of a flock is barbarous. On the other hand, if there is a good shade tree in the field, the sheep will gather about it so constantly that they will get the ground all fouled and the eggs of parasites will accumulate until this shade becomes a perfect plague to the flock. Before long, such a flock will be coughing from lung worms and stomach worms, and the droppings will show many segments of tapeworms, which will increase very rapidly, and by the end of the summer, this flock is in bad shape. A flock of sheep that cannot find shelter in a large body of timber should have access to sheds. Protect your sheep from the sun, if you have any mercy on them at all.

See that your flock has access to pure water. Many persons urge that sheep don't need water in the summer months. It seems to me very strange that they would so regularly drink it if they had no need of it. The dew on the grass is not sufficient. Did it ever occur to you that a sheep might get sick? In this case, the first impulse is to go for a drink. Put yourself in this position and try to realize the sufferings that may come to some sick animals because they are not given an opportunity to drink.

Finally, keep salt always before your sheep. Some urge the plan of salting every three days, as this forces a man to see his flock regularly. A man should need no forcing to see his flock. Some one should see them every day or two. A man will so often forget to salt his sheep and they will be allowed to suffer for days. This must be real suffering. I have often noticed one sheep leave the flock and go all the way across a large pasture to a salting ground and stand there piteously calling for salt. When they find they can't get it, they seek the bare places where the salt had been placed and dig into the dirt, eating the dirt for the little saline matter in it. Do keep salt before your flock for their health and comfort.

I believe salt is the sheep's principal medicine. Bitter herbs are their tonic, and salt, their calomel. Some place rock salt around the pastures and this is better than nothing, but it takes a sight of licking to supply the wants of the flock. It is better to keep covered salt boxes in the field.

Here are just a few things that can be done for the comfort of your flocks. Hope you will think enough of your sheep to do these things.

H. B. ARBUCKLE.

The Poultry Yard.

POULTRY NOTES.

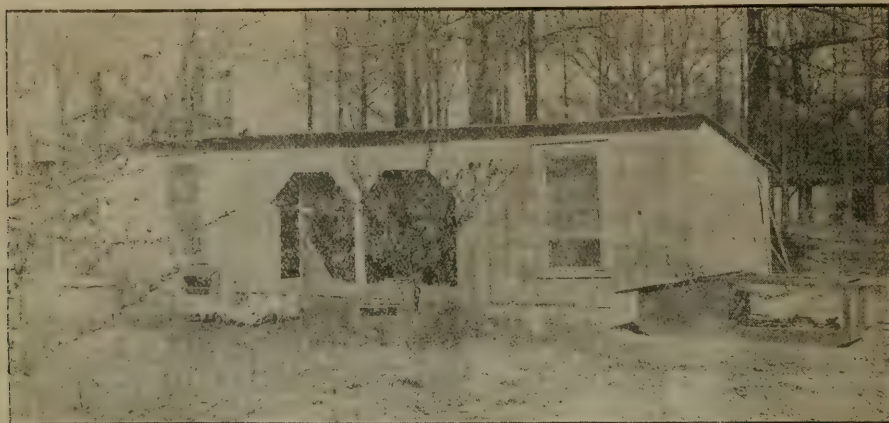
I have received so many inquiries during the month and requests for answers in The Planter I cannot be selfish. I select a few and answer them briefly. I have a number of letters that ask me what I consider a good or satisfactory hatch from eggs bought from advertised stock. How many chicks from 15 eggs costing from \$1.00 to 15.00? This is a delicate question to write about and one that will raise a storm. I have read nothing in The Planter on this topic and have concluded to give my experience and observation. I have sold many eggs for hatching. Many thousand settings. Many years of this business has hardened my heart. I have bought many eggs, very many. This has generally made me angry. There is no reason why eggs that are fertile and strong should not hatch well after being shipped a reasonable distance, if properly packed. I consider 50 per cent. a good hatch, but not a satisfactory one. Many people who buy eggs and have never sold eggs for hatching blame the seller entirely for the failure, when, many times, it is their own fault. Eggs that have been shipped should always be rested at least 24 hours before putting them under hens or in incubators. Do not unpack them. Turn the basket or package bottom side up and put in a cool place and leave undisturbed 24 hours, then put them under hens or in the incubator, and every good, strong germ will hatch. The jar and jostle of transportation has a tendency to separate the germ from the yolk and this resting restores it to its normal condition. Many eggs get chilled in transportation. Some get handled so roughly that the yolk is broken. I have seen egg packages put in the rear end of an express wagon and then driven rapidly over stone streets until one wonders that every egg is not broken. It is true, too, that very many eggs sent out are not fertile, or the germ is too weak to live. This is caused by too close yarding, high breeding, want of congeniality and other causes. Some years ago, I had two yards of White Wyandottes, and the eggs failed to hatch. Only about ten per cent. hatched. I changed the males from one pen to the other and the eggs became fertile at once. I had a fine light Bramah cock that would only mate with one hen in the yard. These are some of the causes why eggs do not hatch.

On the other hand, many times eggs hatch well and the buyer reports a poor hatch or no hatch at all in the hope of getting the seller to duplicate the order free. I have had many cases of this kind in my experience. Some years ago I shipped 100 white Java eggs to a customer and he reported a very poor hatch, or none, wanted me to send him another 100 eggs free. I did not send the eggs. In December following, I was sent to this locality to a Farmers' Institute. I went to this man's yard and found 67 living white Java pullets and cockrels in his yard and he told me he had sold 11 cockrels from his hatch. I then told him that I was the man who sent him the eggs and showed him his letter and demanded an explanation. He said that he always "worked" it that way and generally got a second lot of eggs free. This is what hardened my heart. Now my conclusion is like this. When I sell eggs, I send my customer the very best I can make, pack them the best I can, send them promptly. This is all I can do. When I buy eggs, I give them the best care I can, and if I fail to get a good hatch, I do just what a man does when he makes a poor crop of corn or wheat or anything else, plant again next year and try again. I have paid \$5.00 for 15 eggs and did not get a chick, and I am still alive and well. I have bought cows and horses and they would get sick and die and I would buy more cows and horses.

Several readers want to know about meat meal and beef scrap. I have said several times in these notes, "If there is any really good beef scrap, I have failed to find it." One firm sent me a sample for trial. It looked good. It was clean and sweet. I bought 100 pounds of it and fed it to a lot of chicks, in a week or two, they began to droop and die. I put some of this beef scrap in a clean cup, poured boiling water over it and left it in the warm sun four days and it was still sweet. Meat that will not spoil has been treated with some preservative and when so treated, it becomes indigestible. Anything that is indigestible taken into the stomach will cause trouble. If continued long enough, it will cause death. I think much of the bowel trouble is caused by this kind of feed. I do not know of any good beef scrap.

CAL. HUSSELMAN.

Keep the cultivator running in the crops to encourage growth and keep down weeds.



A PRACTICAL AND ECONOMICAL POULTRY HOUSE FOR 50 TO 75 GROWN FOWLS.

Editor Southern Planter:

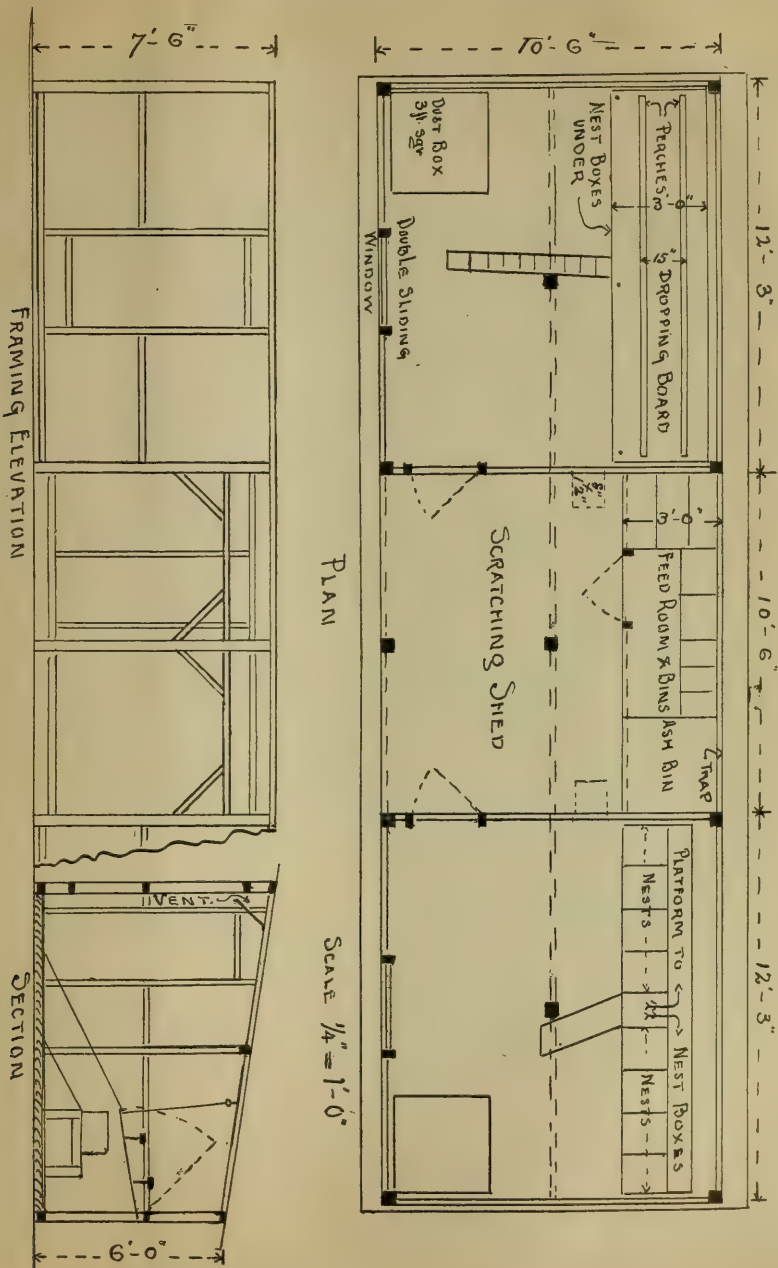
Description—Corner posts cedar about 4 inches square set 30 inches in ground; sill course and framing for window openings, 2x4, all other framing 2x3. Vertical siding with lath strips over joints. Roof sheathing laid crossways of building leaving 4 to 5 inch spaces between boards. Roofing of V-crimped iron, painted both sides and given an extra coat outside. Both windows have outside, hinged galvanized wire screens, 1-2 inch mesh, which can be securely fastened. The spring hinge door to feed room is also covered with same wire. Doors to roosting pens made of tongue and groove stuff. All doors are 2-0x6-0 in clear. The floors of roosting pens have about 4 inches of cinders well packed with 2 inches of sifted coal ashes; the top being 4 to 5 inches above outside ground level. Dropping boards made of tongue and groove stuff hinged at back 5 inches from walls and three feet from floor, hung in front from ceiling by three heavy wires; top of board 30 inches from floor. Perch made of 2x3 stuff; 3 inch side top and bottom with rounded corners on top, each supported by three 1-2 inch iron pipe standards screwed firmly to dropping boards and over which the perches slip through holes 1 1/4 inches deep, bored for the purpose. Under each dropping board is a platform and skeleton

frame to hold two nest boxes of four nests, each nest mesh wire bottom. These slip in and out very easily and are readily kept clean. Each pen has a about 15 inches square with galvanized 1-2 inch dust box 3-0x3-0x6 and is kept filled with sifted coal ashes, with a liberal portion of tobacco dust mixed in. The hen doors are 8x12 hinged at bottom and when let down form their own incline. The feed room has eight feed bins, metal lined and with hinged lids. The ash bin is 3-0x3-0x3-0; above it a movable trap through back of house allows filling from outside. The widows are the common double sliding sash with full 1-2 inch space between middle bars, openings about 3-0x5-0. Inside walls of pens are covered with heavy building paper well secured; the ceilings tightly covered with roofing material (similar to Flintcote) with a metal drop flange arranged to leave a space about 8 inches between lower edge and front wall. This latter is the ventilation; the air passing up and through the spaces between roof sheathing boards, which spaces are open front to back. So perfect is the ventilation that no moisture has ever collected on the glass, however cold outside, showing the air to be dry inside, an essential to healthy fowls.

By referring to the plan and photo, a clear idea of the house as built can be gotten. Such a house should not cost over \$50, including fencing for a large run. The cost to the writer being \$30, but he was his own builder and a little of the material was from an old house.

J. P. WIGHTMAN.

Hanover Co., Va.



POULTRY FARMING—AGRICULTURAL LITERATURE.

There is no branch of agriculture in Virginia that has in the past been so neglected as poultry, nor is there, on the other hand, one that will give better returns from a small outlay when scientifically handled.

Several years ago it was impossible to arouse an interest in this important industry in this State. To-day, conditions are far different; the poultry industry in Virginia is no longer a secondary question, but, on many small farms, has become a matter of first importance and interest. And now, to the industrious hen, with her energies rightly directed, credit may be given for profits that before her real value was appreciated were entirely absent from the farm balance sheet.

To scientific care and feeding, the enormous increase in the annual egg and chicken crop is directly responsible.

The by-products of the cotton seed mill, the packing house, the brewery, the cannery, the "breakfast food mill," are now eagerly bought, either by the poultry food manufacturers to be combined into a "complete ration," or else by the scientific poultryman himself, who prefers to make his own mixtures and combinations. The poultryman, whose hens do not to-day pay their board and hand over a snug percentage of profit at the end of the year, has himself to blame.

There are, however, pitfalls for the novice in the poultry business. The demand for poultry foods has created a supply, good, bad and indifferent. "Of making many books there is no end," this certainly applies to literature on poultry, and again this also is good, bad and indifferent. The United States Government, State Agricultural Departments and Experiment Stations stand, however, as a barrier of protection to the inexperienced. The results of their tests and experiments are to be had for the asking.

Right here I want to pick a friendly quarrel with the Virginia farmer generally, and that is, that he is less willing to take advantage of the free education offered in the Agricultural bulletins, than the farmer of almost any other State in the Union. There is still in Virginia a great deal of unreasonable prejudice against what our farmers are pleased to call "book farming." Let us lay aside this prejudice and take advantage of this information—information that is the result of extensive, practical experi-

ments, not theories, and which is ours for the cost of a postage stamp.

Write to the Director of the State Experiment Station, to State Commissioners of Agriculture, or to the Secretary of Agriculture at Washington, and ask them for information on poultry. Further than this, if you are using a poultry food with which you are not thoroughly satisfied, or about which you would like to learn something more than the manufacturer's circular tells you, send a sample to the State Agricultural Department, which will analyze the sample, sending you a copy of the analysis without expense to you.

Henrico Co., Va.

E. D. Q.

If readers of *The Planter* will only refer to the list of Reports and Bulletins which we publish every month, he will find particulars of all the Bulletins issued during the preceding month, by the National Department of Agriculture, by the different Experiment Stations in the several States, and the various State Departments of Agriculture. From this list he can see where to get the latest information on all the different questions of interest to farmers, live stock men, truckers, and fruit growers, and by sending to the different places, whose addresses he will find in the list, a post card asking for the particular Bulletin required, he will usually get a copy in the course of the next mail or two. The State Experiment Stations are required first to satisfy the calls from their own States, but have usually surplus copies, which they willingly send to applicants elsewhere.—Ed.

CHICKEN CHOLERA.

Editor Southern Planter:

I would like for some of your readers to try, and report results of the following remedy for chicken cholera: One desert (or two tea) spoonsfull of castor oil. Open the hens mouth and pour it down her throat as soon as you discover that she is sick. In every case in which I have known it tried the fowl seemed to be in normal condition in twenty-four hours. The fowl should be put where it will not be disturbed by other fowls.

SUBSCRIBER.

District of Columbia.

The Horse.

NOTES.

The week of October 8th-13th next promises to be a gala one for not only the city of Richmond, but for many thousands from other parts of the State, as those are the dates of the Virginia State Fair and also of the Richmond Horse Show, two affairs that at this time are certainly up for the consideration of most Virginians. Of the State Fair Hon. Henry C. Stuart has been elected president; John Stewart Bryan vice-president; Chas. B. Cooke, secretary, and Henry L. Cabell, treasurer. These gentlemen were selected on account of their fitness in every way, and sub-committees will be chosen at an early date to aid them in their work, so that between now and the time for the opening of the Fair no time will be lost. From start to finish the Fair will be conducted on business lines, with no dead heads at the gate or in any of the departments of management or arrangement and this should lead to success, resulting in a great exposition of the agricultural and mechanical resources of our grand old Commonwealth.

Seeing that the horse show season is now on doubtless the following revised list of dates will prove of general interest. The Keswick Show, which marked the beginning of the Virginia Circuit, was held on May 16th and 17th and proved a success. It will be noted the Lynchburg Horse Show Association is no longer a member of the Circuit, as no show will be held there this year, while Norfolk precedes Richmond instead of following, as formerly,

Leesburg, June 7 and 8.
Upperville, June 14 and 15.
Culpeper, July 4 and 5.
Fredericksburg, July 11 and 12.
Manassas, July 18 and 19.
Orange, July 25 and 26.
Charlottesville, August 1 and 2.
Front Royal, August 2 and 3.
Staunton, August 7 to 9.
Harrisonburg, August 14 to 16.
Berryville, August 21 to 23.
Warrenton, August 29 and 30.
Norfolk, October 1 to 6.
Richmond, October 8 to 13.

The thoroughbred yearlings from the Ellerslie stud of R. J. Hancock & Son, Charlottesville, Va.,

will be sold at the Sheepshead Bay Paddocks, of the Fasig, Tipton Co., New York, on June 28, and a grand lot these richly bred youngsters are.

The lot will include a full-brother to Pater, a stake winner of seven races in 1905 as a two-year-old and winner six times as a three-year-old in 1906. Also a full-brother to Eonic, winner of the Burns Handicap and twenty-five other races on metropolitan tracks. A full-sister to Mistiss, winner of four races as a two-year-old in 1904, of the Queens Hotel Cup and the Independence Stakes and others in 1905.

There is also in the lot a half-sister to Keator, winner of the Rockaway Stakes this spring.

Others in the lot are full-sisters to Minna Baker and Judge White; half-sisters to Charawind and Charina (winner of fifteen races in this country and four in England, including the Nottingham Handicap). There are also colts by imp. Fatherless from a sister to Charade and Ma Belle, and a half-sister to Russell, by Eon.

In the bay stallion Supremacy, by Bell Boy, 2:19 1-4, A. B. Lewis, of Lewisiana Farm, Fredericksburg, Va., has a horse of rare breeding, and with a turn of speed that entitles him to consideration, as he has a record of 2:29 and a trial of 2:17. Bell Boy sold for \$52,000 and was one of the gems of the famous Electioneer-Beautiful Bells family.

On the maternal side, too, Supremacy is richly bred, his dam, Susan, being a full sister to Allan Dowe, 2:19; Alcamedia, 2:19 3-4 and other fast ones, by Alcantara, son of George Wilkes while back of that comes the great brood mares Susie and County House Mare, the dam of Wettie, 2:18. Supremacy is a horse of fine size and his disposition is about perfect, certainly desirable qualifications in a stud horse. He combines the magic blood of George Wilkes and Electioneer, whose families are right on the top wave of popularity and success.

R. C. Broadus, Manchester, Va., has sold to Lawrence J. Crovo, of the wholesale commission house of Ferrero, Crovo & Co., Richmond, Va., the suckling colt by Kelley, 2:27, dam Florence Miles, 2:21 1-4, by Prophet Wilkes, for \$150. The youngster is a chestnut in color and of fine size. He is to be delivered at weaning time. Broad Rock.

FRENCH COACH HORSES IN VIRGINIA.

Mr. William G. Owens, owner of the Cedars Farm at Midlothian, Va., has just added to his stock registered French coach horses. Mr. Owens has made a business connection with Mr. E. M. Barton, owner of Sedgeley Farm, and importer and breeder of pure-bred French coach horses, and the first shipment of horses has been received at Midlothian. This shipment includes the show horses, the stallion Intrepide by the world's champion Indre, and Thalia, by the great Pepino, dam, a daughter of champion Indre. These two horses will be shown in Virginia this fall. Thalia's stable mates, Grand Dame, also a daughter of Pepino, and Luella by champion Indre were also in the shipment of horses as was also Plutarch, a handsome dapple bay stallion by Regent.

Intrepide is possibly one of the best bred and handsomest horses ever seen in this State. He is



seal brown, 16 hands and weighs about 1,200 lbs. His sire, Indre, is by the great Phaeton, imported 1889; winner of first prize at Universal Exposition, Paris, 1889. Grand Prize of Honor, World's Columbian Exposition. Four times champion winner over all breeds. Twelve times winner of first prize.

Intrepide's dam, Inada, is by the Government stallion Carnaval, imported 1889; winner of first prize Universal Exposition, Paris, 1889.

Intrepide was a winner at the Chicago show last year.

The French coach is a great combination horse; has no superior as a "high stepper;" is a "speedy

roadster," and makes an excellent saddler. Having been bred and controlled by the French Government since the time of the Crusades, these horses possess in a marvelous degree the necessary qualifications for a strictly useful animal—viz, pure blood, finish, action, docility, fire, size, and as much speed as is consistent with the other necessary qualities of a great and useful harness horse.

Farmers and horsemen generally who are interested in the breeding of useful and ornamental harness horses are cordially invited to visit the farm.

During the first season in stud at Richmond, Va., Lord Chancellor was bred to only four mares, and to those while he was in training, from which resulted three foals, now yearlings, and they are good ones. One of the trio is owned by Alderman James Bahen, who refuses to price him; another is the property of Dr B. L. Hillsman, who has declined an offer of \$250, while the third a bay filly, from Louise, a sister to Branchwood, 2:22 1-4, is owned by W. L. Bass, the Acca Farm trainer, who had Lord Chancellor, and is wonderfully pleased with the speed she shows on a trot. The 1906 crop of foals by Lord Chancellor are arriving and a good looking lot they are. The son of Dare Devil, 2:09 is being well patronized this season, too, as some of the best mares in the State have been sent to his court.

The Loudoun Hunt Club, of Leesburg, Va., has recently been re-organized and a Board of Governors, made up of the following gentlemen, elected: William C. Eustes, of Washington, D. C.; D. B. Tennant, Westmoreland Davis, Henry Harrison, A. M. Chichester, Jr., E. B. White, Henry Fairfax, of Aldie, Va., and W. A. Metzger. Westmoreland Davis was chosen M. F. H. The affairs of the club are reported to be in a flourishing condition. The gentlemen who direct its affairs are large land owners and interested in cross country sport.

Cucumbers for the pickle crop should be planted this month. Prepare the land well and fertilize liberally with a fertilizer having about 6 per cent ammonia, 5 per cent. phosphoric acid and 8 per cent. potash. This made be made up at home by mixing 300 lbs. nitrate of soda, 700 lbs. cotton seed meal, 700 lbs. acid phosphate and 300 lbs. muriate of potash to make a ton. Plant in hills 3 or 4 feet apart each way. The cucumbers can be picked and put into brine as they become large enough and then be marketed all at one time.

Miscellaneous.



GRADUATES IN AGRICULTURE AND HORTICULTURE VIRGINIA COLLEGE OF AGRICULTURE.

Standing—Left to right: A. W. Taylor, J. W. Grandy, Jr., J. H. Broce, E. M. McCulloch, B. C. Anderson, A. W. Drinkard, Jr., R. P. Cocke, W. L. Owen, W. B. Oglesby.

Sitting—Left to right: F. M. Humphrey, E. C. Turner, J. H. Squires, T. B. Hutcheson, R. T. Pratt.

THE GRADUATING CLASS OF THE VIRGINIA COLLEGE OF AGRICULTURE.

Those who are familiar with the agricultural conditions of the South realize that the greatest problem requiring solution at the present time is the improvement of our landed areas and the permanent maintenance of soil fertility. On the consummation of this most desirable end rests the future of the South as an agricultural country. Industrial development has gone forward with tremendous strides in the last few years and the natural resources of the country are being exploited, and this process will continue for many years to come. But our landed

areas, because of exhaustion through the continual growth of crops like cotton, corn and tobacco and the neglect of live stock industries, have in many instances reached a low ebb. This condition is a more serious one than some of us realize, and it is high time that efforts were being made to repair the damage which careless culture has wrought and renew confidence in agricultural operations. This is necessary that industrial development may go on uninterruptedly, for the purchasing power of the country and the degree of confidence enjoyed in business depends on the prosperity of the agricultural community, and at the present time industrial development is making far greater progress in proportion than farm-

ing. It is no wonder, therefore, that unexampled opportunities are opening to young men in the South along agricultural lines. Everywhere there is evidence of the need of better methods of farm practice, more careful and rational tillage of the soil, the application of fertilizers adapted to the peculiar needs of the crop to which they are applied, and the adoption and utilization of labor-saving machinery to supply in part the need of the vanishing negro laborer.

Do these things not call for leadership and leadership of the highest type? Skill is at a premium in every business except that of agriculture, and it is gratifying to know that the highest type of intelligence on the farm is now generally appreciated and the need of agricultural education a recognized necessity. Educated leadership is therefore the slogan of the farmer of today, and in a practically virgin field, what greater opportunity can a young man wish for. Control of markets is an excellent thing, but very difficult of accomplishment. On the other hand, the cost of production can be minimized materially on many a farm crop, and the certainty of producing a crop, unless extreme climatic conditions intervene, can be increased 50 per cent. by the application of better methods of cultivation. It is surely a delightful and inspiring thing to learn that the young men of the South are realizing more fully than ever before the opportunities before them to become the leaders in agricultural thought and practice and to become an inspiration to their fathers and brothers who have not enjoyed equal privileges with them. It is a great pleasure, therefore, to record the growing interest in education that makes men both scientific and practical, that trains both the mind and the hand, and that teaches men how to overcome difficulties through the assistance of science that have been regarded as insurmountable for years and years.

That agriculture is a vocation commanding the respect and attention of our community is witnessed by the accompanying picture of the graduating class in agriculture and horticulture in this institution. These young men represent every section of the State and are the scions of distinguished ancestry, which of itself is a most encouraging sign of the times. We have every reason to feel proud of these young men for they have distinguished themselves in every walk of college life and go forth into the world with abundant promise of giving a noble account of themselves in their chosen vocation. The mere fact that such a large number of men should be following

agriculture and horticulture as a vocation is an evidence of the trend of public sentiment and indicates the wide-spread recognition of both the need and the value of agricultural education.

The names and address and future plans of these young men may be briefly indicated as follows:

Alfred Wilson Taylor, Knoxville, Knox Co., Tenn., expects to pursue technical work in agriculture.

John Walton Grandy, Jr., Norfolk, Norfolk Co., Va., will follow horticultural pursuits.

James Hubbert Broce, Blacksburg, Montgomery Co., Va., will follow orcharding.

Edward Madison McCulloch, Bluefield, Mercer Co., W. Va., expects to pursue special work in agriculture.

Bernard G. Anderson, Farmville, Prince Edward Co., Va., will follow experiment station work.

Alfred Washington Drinkard, Jr., West Appomattox, Appomattox Co., Va., will pursue advanced studies in horticulture.

Randolph Preston Cocke, Bon Air, Chesterfield Co., Va., will follow special work along agricultural lines.

William Ludwell Owen, Turbeville, Halifax Co., Va., expects to follow special work in agriculture.

William Bowen Oglesby, Draper, Pulaski Co., Va., will follow post-graduate work in agriculture.

Frank Moore Humphrey, Paxson, Loudoun Co., Va., will follow orcharding in Loudoun county.

Edward Carter Turner, The Plains, Fauquier Co., Va., expects to follow farming in his home community.

John Houston Squires, Charlotte, Mecklinburg Co., N. C., expects to take up investigational work in agriculture.

Thomas Barksdale Hutcheson, Charlotte, Charlotte Co., Va., expects to follow experiment station work.

Richard Turner Pratt, Port Royal, Caroline Co., Va., will pursue post-graduate studies in agriculture next year.

The wealth, the happiness and the permanent prosperity of the South are not all based on mines and manufacturing, but on the conservative cultivation of the soil. Does not this evidence of the growing interest in agricultural education and the winning of strong recruits to its ranks argue well for the future? A balance in educated effort is necessary and the pendulum has swung possibly rather too much towards industrial lines for the permanent good of the mass of our population. Now there

seems to be some prospect of an adjustment of the relation between educated effort in industrial pursuits and farming. The question has been so frequently asked, is not agricultural education a failure; what is the agricultural college of the State doing; have they turned out any useful and practical men? Yes, these questions have been asked and possibly with some reason, and though the fulfillment of the promises made in the beginning with regard to agricultural education has been overland in consumption, they can now all be answered positively and affirmatively.

What the agricultural college of today needs, what the young men of the country need is to be inspired with the nobleness of the vocation of farming; with its possibilities when conducted along skillful lines. What the people of the State need to learn is that agricultural education is a practical success; that it has passed the experimental stage and is now on a firmly established basis. The people of the State also need to learn that agricultural education is expensive; that many of the failures in the past have been due to wrong impressions of what an education suitable for the farmer should be, and to the stinted sum doled out to those in charge of education and research work. No other type of education properly given calls for more elaborate equipment and more expensive apparatus than that of agriculture. Generous financial support and a helping hand are the chief needs of the future. "Knocking," to use a slang expression, should be relegated to the dark ages. Progress comes from united effort. The State's most permanent investment will follow when thousands of young men are educated to become the leaders in agricultural practice. There are two crops raised on a farm; those utilized for the maintenance of the human race directly and indirectly; and the crop of boys and girls. Much thought and labor has been expended on the raising of the former and still only a little has been achieved, but in the strife to establish dominion over vast areas of primeval territory, the true education of the crop of boys and girls has sometimes been overlooked. Shall this be said of the future, or will the marvellous progress of the United States along all lines be marked by the education of a class of farmers superior in skill and intelligence to any the world has ever seen? Surely this is a consummation devoutly to be hoped for, for in its fructification lies the establishment and maintenance of the supremacy of the United States along

both agricultural and industrial lines, for one can not succeed without the other.

ANDREW M. SOULE, Dean.

Editor Southern Planter:

REDUCED DUTY ON STRIPS IN ENGLAND.

Editor Southern Planters

The tobacco planter needs now to be well posted in the domestic demand, and in the quantitative and qualitative production, and the disposal methods and price of the same, as these are interdependent concerns of every progressive producer of the monied weed, a large portion of which is sold in export markets. Therefore the recent reduction of the duty in England from three (3) cents to one cent is significant in that it makes way for the former demand for strips there.

The strip demand will open an early market for the weed as strips are best made of tobacco in winter, or soft order, and when too, it is heaviest, a factor the planter who proposes to have his crop redried may well consider, calculating time and risks, etc.

The stemmeries will have more to do, in the sense that there is the more labor and expense on strips, and that without a corresponding profit, which planters may experience in case some are lead to start doing this for export trials.

There is no present foreseen cause why on the whole tobacco should be higher on account of the strip demand, except that it may induce larger speculative exports for a while, but the outlook for the planter is at least in no wise worse by this fact and certainly the leaf men will welcome the lowered duty, to secure fresh orders.

It must not be forgotten that the old crop now out of the farmers hands, is not profitably converted into strips, and besides this there will be none of this (1906) year's crop available, however much may be exported to England, until it is aged, which will be a year at least after the new crop is marketed. The Britisher leans more and more to the old stock.

The supply of strips in England is the smallest in twenty years. If the farmer is short of labor now he may be all the more so when the demand comes in the fall for stemmers. Incidentally, yet in this connection, it may be stated on good authority, that there is now on this side an intelligent, and well known London tobacco commission merchant and dealer, whose special mission is said to be to capture

the planters trade for his market and himself, especially since experiencing the decline of the consignment business, which has been due to the tobacco trust's absorption of British plants, no less than, to the necessity on the latter account of the independent factories in England getting their supplies directly from agents and direct order men here rather than from the British consignees, with the payment of additional dependent charges and added profits. Like causes produce like effects. The speculator shipper became mori bund with his consignee's business. The middle man, if he can, wants to be the same, but bigger still, and this time wants to ride on the planter's back.

Planter prized or agents prized tobaccos in foreign countries are governed by the same gauge and rules of trade. The greatest demand and the best price for the weed is here at home. And many a time has that sent to England been brought back here to sell at double charges and long years' interest, and after deterioration, and sold for a profit. There is no fear that the tobacco trade will leave our own shores or markets to block others.

Of one thing the planter need not be afraid this year, and one might say the same of the next year; i. e., over cropping. Labor scarcity settles that.

The consensus of opinion is now that there will be a ten per cent. decrease in the South Carolina and Eastern North Carolina belts, but the crop will be the same as last year in the Virginia and North Carolina old belts.

As long as tobacco fluctuates according to individual tastes, use and judgment, the world over no one man, or set of men, can absolutely fix a price with a standard or type.

Say what one will, speculation was the life of trade before the trust killed it. That was its first move and success as well. The old speculators are punished and out, and it looks in some quarters as if some planters were going to take their places and their risks. Buyers and competition make prices and higher markets, hence, why should not our farmers become buyers as well as any one else? Each one, firm or company for themselves, in place of agents, to make a price according to judgment in as many different localities. As a matter of fact, many of our prominent and successful tobacco men have come from the farmer class already. If one is a judge of what one's tobacco should sell for, the same judgment should be available as to what to buy at from others. Why call upon others to do what the

farmers can do themselves? The easiest way to advance or to hold the market up is to show good faith by investing in it. The same means would be at the disposal of farmers as any other parties.

It is worthy of note here, that Cigarette machines are responsible for a very large increase in bright tobacco consumption, and since they were perfected to use up all the shorts and make good cigarettes of lugs and low grades, the demand and prices for these have risen, former smokers are higher, and so are scrap, to take the latter's place, as formerly used, while on finest cigarette tobacco price is lowered, not so much perfect leaf being required to make a cigarette as without machines. Nowadays, bright stock is very limitedly used as a filler, for plug or twist, burley, sun cured and red or semi brights being substituted. There are some material causes for some of the changes in prices, outside of other conditions.

Better culture, smaller crops, more fertilizer this year promise to bring the planter better results, demand and supply will finally settle the market at better paying prices. W. E. DIBRELL.

THE STATE FARMERS' INSTITUTE.

Editor Southern Planter:

The third annual meeting of the State Farmers' Institute, to be held in Roanoke in July, promises to be an important gathering of Virginia farmers. The Institute has made a good beginning and is now on its feet. The farmers know before they go to the meeting that they will hear some real talks on Virginia Agriculture and its related branches. Politics have been kept in the rear. It will be a poor meeting for the furtherance of political schemes. The farmers are always ready to listen to good talks on agricultural subjects and they will not be disappointed. The influence of the Institute has been felt all over the State. This was realized by the last legislature which greatly strengthened the Department of Agriculture at Virginia Polytechnic Institute. A good appropriation for completion of the new agricultural building at Blacksburg was made beside other appropriations for strengthening the agricultural features. The addresses at the last meeting have been published and distributed over the State. The farmers now realize that by organization they can have an influence. Hence, there appears no reason why the Institute should not grow. The next meeting is likely to determine the success of the Institute in the future. We went to the last meeting

largely through curiosity. We are likely to go to this one for work and to be benefitted. The organization of the Institute is not yet perfected in all its details. Farmers who present widely different phases of agriculture go to the meeting; such as dairymen, stockmen, horticulturists, etc. As long as men representing such varied interests meet together in one body, the addresses should be short and to the point in order to hold the interest of all. For instance, while the San Jose scale is of vital interest to the fruit grower, a long technical discussion of this serious pest is not likely to interest the dairyman. Neither is a lengthy technical address on dairying likely to interest the fruit grower. A lengthy discussion of truck farming is not likely to interest the stockman. To more intelligently meet these different interests, I have known such bodies to be divided into sections for discussion of subjects especially interesting to each section. Then all sections meet together once in twenty-four hours for passing resolutions and discussing subjects of interest to all. The great difficulty of such a plan working satisfactorily is the usual lack of convenient meeting places for all sections at the same time. This objection would likely be met at V. P. I., where there is plenty of room during the college vacation. To hold the meetings there would also obviate the trouble of determining who are to go on the excursion train to V. P. I. This is purely a matter of suggestion on my part, since I would not say a word against Roanoke, which city has done so much for the success of the Institute in the beginning when it was needed.

While we would like to see some addresses cut down in length, we would like to see more general discussion after each address. To help make the meeting successful, each farmer should come prepared to discuss some subject, whether he is "down on the program" or not. He should also come with a desire for information on some farming subject. There is likely to be some man in the meeting who can give the information. Each farmer should have a pencil and tablet to take down some information as it is given, which, if he depends upon his memory entirely, may be forgotten.

Another thing I would like to see at such meetings is small exhibits of excellent varieties of seeds, plants, fruits, grains, etc. Frequently, information is imparted more readily through the eye than through the ear.

My thought is to vary the attractions of the meet-

ing so as to hold the attention of those representing varied interests. We want the Institute to grow. It is beneficial to the State. The farmers need an organization, as we pointed out in *The Planter* more than three years ago.

R. H. PRICE.

Montgomery Co.

TOBACCO EXPERIMENTS IN VIRGINIA.

Notwithstanding the fact that Virginia is one of the largest tobacco producing States in the country and that the prosperity of a very large number of farmers depends largely on this crop, it is a fact that up to this time no scientific experiments have ever been conducted in the State on this crop. This is also largely the case in the other tobacco producing States. Probably less scientific work has been done in tobacco production than in the production of any other staple crop and hence it is exceedingly difficult to advise growers as to the best methods of increasing production or improving quality. In both respects much has yet to be learned and much is needed to be learned before growers can set about the production of a crop upon which they can count with anything like a certainty as to results. In this State the location of the State Experiment Station on the mountains of Southwest Virginia has practically precluded any experimental work being done as there tobacco cannot be grown successfully. The laws governing the expenditure of the money appropriated by the National government for the support of the Experiment Station precludes the use of the money at any other place than the Station, and, therefore, no experiments could be made in the tobacco sections until means had been provided other than those provided by the National government. At the last session of the State Legislature application was made for an appropriation in aid of the work of the State Experiment Station and it was largely with the object of providing means for tobacco experiments that this appropriation was asked, as Prof. Soule, the director of the Station, felt that the tobacco growers of the State were entitled to claim his help in their work. In supporting the claim for the appropriation we strongly urged this point upon the members of the Legislature, and, though we were not able to secure the whole appropriation asked for (\$10,000), yet \$5,000 was appropriated, and it is now our pleasant duty to announce that Prof. Soule, the director of the Station, has secured the co-operation of the Department of

Agriculture at Washington, through the Bureau of Soils, in the conduct of two experiments in tobacco production; one in the dark, heavy shipping belt and the other in the light, bright belt in this State. For the carrying out of these experiments a large part of the appropriation made by the State Legislature will be used and this will be supplemented by a larger sum to be found by the National government and we are looking to see great good result to the tobacco interests of the State from this joint work. It may be pertinent to state that the failure to have scientific work done in tobacco experimentation earlier in this State rests to a great extent on the State Board of Agriculture. Some years ago we strongly urged that this Board should take up the work which the Experiment Station could not do and as the result of that effort a farm in the Southside tobacco belt was donated to the Board by the County of Charlotte with the express stipulation that tobacco experimentation should be made the prime feature of the work to be done. The Board, which had ample funds at its disposal to do this work, arising from the fertilizer tax, a large part of which is derived from fertilizers used in the production of tobacco placed in charge of the farm a man who had no practical or scientific knowledge of the tobacco plant or its requirements, and though thousands of dollars have been expended on the farm under the direction of the State Board and its farm manager not one single scientifically conducted experiment with tobacco has been made nor have the tobacco growers of the Southside or anywhere else learnt anything from the work that has been done. Under proper direction and management this farm ought to have done good work for the tobacco interests and also for the other agricultural and horticultural interests of the State, but its work has practically been a failure and reflects seriously on the State Board of Agriculture. Had our advice been followed and the farm been placed under the scientific direction of the State Experiment Station, the work now about to be done under the direction of Prof. Soule and the experts representing the Department of Agriculture could by this time have been well under way and something have been learnt about the production of this crop.

Prof. Soule thus outlines the work which it is proposed to do:

"Experiments will be conducted in the dark tobacco belt near Appomattox and in the light tobacco belt near Chatham. "The problems to be in-

vestigated at these stations are the same in a general way, but with certain specific differences made necessary owing to the fact that one station is located in the heart of the dark tobacco belt and the other in the light tobacco belt. It is of course understood that the use of green crops of a leguminous nature for the purpose of soil enrichment can be used freely in the dark tobacco belt; whereas, this practice has not been regarded with favor in the light tobacco belt. Naturally, at Appomattox the questions being studied therefore, are how to fertilize the soil so as to obtain the largest yields of high-grade dark tobacco through the use of green crops and commercial fertilizer. Home mixtures are also being compared with ready mixed fertilizers. The advisability of using lime is receiving consideration, while methods of handling and curing have not been overlooked. Some of the results obtained at Appomattox, where work has been in progress under the direction of the Bureau of Soils for two years past, are very instructive, and it is hoped that a bulletin can be issued covering the work at this station early in 1907.

"The work in the light tobacco area commences this spring and three acres of ground will be used the first year. Investigations on a more extensive scale are desirable, but the amount of money appropriated by the State and Federal governments renders more extensive experiments impossible at this time. The questions being studied in the light tobacco belt, are, first of all, to determine if level cultivation will not be equally as satisfactory as the hill or ridge system now generally followed; second, the best number of plants to use per acre; third, the effect of various selections on the yield of tobacco; fourth, the best varieties of tobacco to use; fifth, the effect of different fertilizer combinations; sixth, the proper amount of fertilizer to use; seventh, the relation between ready-mixed and home-mixed fertilizers; eighth, the effect of using lime in connection with commercial fertilizer; ninth, the effect of using fertilizer in which the nitrogen is quickly and slowly available; tenth, studies in curing tobacco."

THE VIRGINIA STATE FAIR, OCTOBER 8-13, 1906, RICHMOND, VA.

It is with very great pleasure that we announce the permanent organization of the Virginia State Fair, which will be held regularly each year in this city upon the fine new fair grounds provided by the city. We do not know of any project to which we

could give a heartier endorsement. Partly from an undercurrent demand for the reviving of the old State Fair but principally from the patriotic and laudable desire to educate, instruct and encourage the farmers of this State, a number of citizens of this city have gotten together and have put up their money to the extent of over \$100,000 and are thoroughly determined to give the farmers of this State a strictly first class and distinctly Agricultural Fair. We feel that the success of the undertaking is assured because at the head of the organization is one of the best known and most successful stock men of the State—The Hon. Henry C. Stuart, of Russell County, Va., who is, by the way, a most valued member of the State Corporation Commission. The directors of the Fair Association have placed the general direction of the Fair in his hands and those who know Mr. Stuart know what that means. To those who do not know him, we would state by way of introduction, that he is a clean, straightforward, broad-minded and successful farmer and business man, who has succeeded in just about every thing he has undertaken to do. Mr. Stuart assures us that his main object in this Fair will be to stimulate interest in agriculture and its kindred branches. It is his sincere desire to bring the farmers and stock breeders in the State into competition with each other with their various products by offering premiums that will make them worth while trying for. This feature alone is worth untold value to our farmers as they are bound to imbibe new ideas, learn of new methods of cultivation as well as learn new methods of marketing, etc. It is his further desire that the Virginia State Fair shall be a most valuable agent for co-operation with the railroads and other agencies already existent, to attract within the borders of this State a desirable class of settlers. He desires us to emphasize the fact that the farmers with their products will have a chance at the bulk of the prize money, which we are assured will be very much in excess of any premiums ever offered at any Fair in this State. The railroads have announced their liberal co-operation with the enterprise and the grounds and buildings are being rapidly gotten into shape. We shall take pleasure in reporting from time to time all items of interest as they develop.

BROOM SEDGE OLD FIELDS.

Editor Southern Planter;

On many farms in the South may be found these ugly looking spots. These have been caused by the

system of farming practiced many years ago, when large farmers had more slaves than they could profitably employ, and were in the habit of hiring them out to railroad contractors and others, stipulating that they were to be sent home 3 or 4 weeks before the end of the year. As tobacco was the principal money crop and new ground tobacco was considered the best, they would clear up every winter 20 acres or more of virgin forest for tobacco. This land was planted in tobacco, followed by wheat, then corn, oats, etc., until it would not bring good paying crops, and having plenty of fresh land by clearing some every year, the old land was left to grow in bushes and broom sedge.

At the close of the Civil War many fields were left unworked for want of labor and inability to purchase fertilizer, and only the best lands on the farms were cultivated, and the balance allowed to grow up in broom sedge and has somewhat improved in fertility, and but for the galls and gullies could easily be made to produce good crops. By the application of lime and potash it will bring a good crop of peas, which, if fallowed under, will put the land in condition for a crop of oats and clover. Of course if there are gullies they should be filled with brush and plowed over, and the galls and bare spots should be well covered with trash from the barnyard or forest, to make the field uniform.

We are much indebted to our Northern and Western friends who have bought such lands in Virginia. Mr. Andrew Ittner, from Pennsylvania, bought a farm in Chesterfield county a few years ago and says it is much cheaper to use fertilizer freely on such land than to clear up new land. He says he plowed up his old broom sedge fields, and by using a good dressing of fertilizers, made a good crop of wheat and now it is as good land as any he has for any crop.

A. S. L.

Richmond, Va.

VIRGINIA STATE FARMERS' INSTITUTE.

The third annual meeting of the State Farmers' Institute has been arranged to be held at Roanoke on July 10th, 11th and 12th. We bespeak for this meeting the hearty co-operation and support of the farmers of the State. A most instructive and attractive program has been arranged and the speakers will be men who have made a special study of the subjects on which they will address the meeting. We ask that farmers will come prepared to join in

the discussions on the topics presented and thus make the gathering the means of wide and permanent benefit to the State. The meeting last year was the greatest and most influential gathering of farmers we have ever known in the State and we look for this year's meeting to surpass this in numbers and importance. The work done at the last year's meeting had profound effect upon the legislation enacted at the last meeting of the Legislature and this cannot fail to be the result of the coming meeting if farmers will attend in the numbers we expect to see present. The farmers have only to assert themselves and they can get what legislation and help is needed in the way of appropriations for the advancement of the agricultural interests of the State. The third day of the meeting will be devoted to a visit to the Experiment Station and Agricultural College. A special train will carry the visitors right up to the College and Station and farmers can see for themselves what is being done to help them in their work and judge for themselves how far those in charge are doing their duty and realize for themselves what further assistance ought to be given to the College and Station. Do not fail to attend. Special rates will be made on all railroads.

POULTRY AND CHEESE MAKING.

Editor Southern Planter:

My husband being a subscriber to the Planter, enjoys reading it very much, and I also have been reading the poultry notes, which I am most interested in. I am trying the "Rhode Island Reds" and am very much pleased with the chicks. I am taking a poultry journal, but have never enjoyed reading an article as much as those written by Mr. Husselman in the Planter. I hope he can be induced to write some more good, practical and honest advice to the readers of the Planter.

I would like to add a few words on cheese-making. I am taking instructions now from my husband, who has been in that business about 14 years. Every farmer should have a family cheese outfit and make cheese for home use as well as butter. I think it is easier to make than butter, and the market is also better for cheese. We are located on a farm, and just started in the cheese business for ourselves. We have two cows which supply the family of 7 with milk and butter and are making from 4 to 5 pounds of cheese per day; cheese selling at 17 cents per pound.

MRS. C. G. VOIGT.

Pickens Co., S. C.

TOO GOOD TO MISS.

We clip the following from Farm and Ranch, believing it too good an object lesson for our readers to miss. It shows what can be done with a few hens, and this is only one instance in many thousand:

"I would like to give a record of my Single Comb White Leghorns as I see Mr. H. Jay Daugherty has given a record of his ten Barred Rocks for twelve months. I am in the same belief as Mr. Murphy on egg producing breeds, and if you will allow me space on the poultry page of your valuable paper I will endeavor to give my record, which is as follows: Eggs produced for the year 1905, from 20 hens: January, 197; February, 235; March, 349; April, 405; May, 538; June, 468; July, 407; August, 279; September, 197; October, 301; November, 398; December, 237; total, 4,101.

"Average eggs per hen, 205. I sold as follows: Eggs shipped for hatching, \$75; eggs sold at market prices, \$18.50; stock sold at fancy prices, \$58.50; stock sold at market prices, \$26.50; I have 20 pullets at \$1 each, \$20.00; six cockerels at \$2 each, \$12.00; total income, \$210.50. Cost of feed, \$19.50; cost of shipping material, \$9; total expense, \$28.50.

"This leaves a profit of \$182, or an average of \$9 per hen. Of course the birds had free range

CORN BREEDING AND SELECTION.

Mr. J. P. Weightman, of Hanover Co., Va., called upon us a few days ago and showed us a sample ear of a corn which he has produced as a result of careful breeding and selection for several years. The corn is the result of cross fertilization between Cokes Prolific and Eureka and the product of this cross has been carefully selected so as to fix the type desired. This ear is larger than the average Cokes Prolific ear and is well filled both at the butt and tip. The grain is deep and wide, cob medium size with 14 regular rows on the cob, and there is a complete absence of starchiness in the grain. The average weight per bushel is 64 lbs. and the yield per acre is good. As a stock feeding corn he regards it as first-class. This corn is an evidence of what can be done by well directed efforts in improving the type of corn grown in the State. We are satisfied that experiments in this line will result in a large addition to the average yield of corn produced in the State and that the product will have a higher feeding value. Every farmer should examine carefully his crop as it grows and mark the stalks having the most desirable characteristics and select from these stalks the seed for his next crop.

THE Southern Planter

PUBLISHED BY

THE SOUTHERN PLANTER PUBLISHING CO'Y,

RICHMOND, VA.

ISSUED ON 1ST OF EACH MONTH.

J. F. JACKSON,

Editor and General Manager.

B. MORGAN SHEPHERD,
Business Manager.B. W. RHOADS,
Western Representative
1714 Tribune Bldg., Chicago, Ill.

MANCHESTER OFFICE:

W. J. CARTER,
1102 Hull St.

ADVERTISING RATES

will be furnished on application.

THE SOUTHERN PLANTER is mailed to subscribers in the United States and Canada at 50c. per annum; all foreign countries and the city of Richmond, 75c.

REMITTANCES should be made direct to this office, either by Registered Letter or Money Order, which will be at our risk. When made otherwise we cannot be responsible.

SUBSCRIBERS failing to receive their paper promptly and regularly, will confer a favor by reporting the fact at once.

WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. Criticisms of Articles. Suggestions how to improve THE SOUTHERN PLANTER. Descriptions of New Grains, Roots, or Vegetables not generally known. Particulars of Experiments tried, or Improved Methods of Cultivation are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of post.

NO ANONYMOUS communications or enquiries will receive attention.

Address THE SOUTHERN PLANTER,
RICHMOND, VA.

ENTERED AT THE POST-OFFICE AT RICHMOND, VA., AS SECOND-CLASS MATTER.

PUBLISHER'S NOTES.

To Advertisers.

Be sure to send in your copy or instructions on or before the 25th of the month for the following month's issue. This is imperative.

ATTENTION, BREEDERS!

The Virginia State Fair Association would like to have all Stock breeders in the State who have an idea of exhibiting at

WOOD'S SEEDS. Soja Beans-

Their Great Value, Both as a Forage and Soil-Improving Crop. ♡ ♡ ♡ ♡ ♡

Usually, Soja Beans sell at a considerably higher price than Cow Peas. This year the conditions are reversed, and Soja Beans can be purchased at much lower price than Cow Peas. This should mean a very large increased use of Soja Beans. As a forage crop, they yield enormously. They stand up well, and can be cut and cured to excellent advantage. Their nutritive qualities are first class, as the forage contains much oil and fat-forming constituents. In soil-improving qualities, they are very good, but are possibly not equal to the cow pea in this respect; but they are fully equal when it comes to cleaning land from weeds and putting it in excellent condition for the crop to follow. They also make a most excellent crop to grow for a crop of beans, but we believe their greatest value is as a forage and soil-improving crop.

When sown as a forage crop, they should be sown thickly, at the rate of a bushel to a bushel and a half to the acre, broadcast; or, in drills, twelve inches apart. Sowing them thickly makes them grow a slenderer stalk, thus making a better quality of forage. Soja Beans stand drought remarkably well, and are increasing in popularity everywhere. Wherever they are grown, farmers are enthusiastic in their praise as one of the surest cropping and largest yielding of summer forage crops.

Remember, we are headquarters for COW PEAS, SOJA BEANS, SORGHUM, MILLET SEED, ENSILAGE, CORN, and all Southern seeds.

WOOD'S DESCRIPTIVE CATALOGUE gives fuller descriptions and information about cow peas and forage plants than any other seed catalogue published.

T. W. Wood & Sons, Seedsmen, Richmond, Va.

the State Fair, in October, to give them an estimate, approximate of course, of how many entries they will make. This is very important, in order that provision may be made for ample stall and pen facilities. A prompt response to Hon. H. C. Stuart, President, Richmond, Va., will be greatly appreciated.

See their advertisement elsewhere in this issue.



WARRINER chain hanging stanchions save cost in feed in one winter, says H. A. Moyer, Syracuse, N. Y. I think them perfect, writes L. B. Calvin, Kewanna, Ind., vice-president state dairy association. Send for booklet containing further information to WALLACE B. CRUMB, South St., Forestville, Ct.

CAUSTIC BALSM GIVES WONDERFUL RESULTS.

Berlin, Ont., March 22, 1904.
The Lawrence-Williams Co.,
Cleveland, Ohio:

I have been using several bottles of Gombault's Caustic Balsam, and found wonderful results. Kindly send me full information in regard to agency, as nearly all who once give it a trial want a bottle of it.

M. S. STROME.

THE KEELEY INSTITUTE GREENSBORO, N.C.

or the treatment of THE LIQUOR, OPIUM, MORPHINE and other Drug Addictions. The Tobacco Habit, Nerve Exhaustion

OPIUM and Whiskey Habits cured at home without pain. Book of particulars sent FREE. B. M. Woolley, M.D., Atlanta, Ga., 103 N. Pryor St.

BANK OF RICHMOND,

Main and Tenth Streets

CAPITAL AND PROFITS, - - - \$1,134,938.14

Special attention paid to out-of-town accounts. Correspondence invited.

Three per cent. interest allowed in Savings Department,

Compounded semi-annually.

Cutaway Tools For Large Hay Crops

CLARK'S REVERSIBLE

BUSH AND BOG PLOW

Cuts a track 5 ft. wide, 1 ft. deep. Will plow a new cut forest. His double action Cutaway Harrow keeps land true, moves 1800 tons

of earth, cuts 30 acres per day.

**DOUBLE ACTION
8-FOOT**

CLARK'S

CUTAWAY HARROW

for any foul plant

CUTAWAY HARROW

CO., HIGGANUM CONN.

Our Combined HARROW & ROLLER

is guaranteed to give 50 per cent. better results in one-half the time. Field look like a garden. No foot prints; can see each marker easier. Saves 1 team; a boy can do the work. Sent on 3 days trial, and freight allowed. Let us tell you more. Ask for reports, descriptions price and terms. Mfd. by IMBODEN HARROW & ROLLER CO., Cleona, Pa. (Agents wanted.)

PATENTED.

CONCRETE BUILDING

BLOCK MACHINE.

Build your new House or Barn of SUCCESSFUL HOLLOW CONCRETE BLOCKS. Cheaper than wood or brick; handsomer and more durable. Made only on Success Block Machine. Also Cement Pest machine. Catalogs and price list free.

HERCULES MFG. CO., Dept. A-162, Centerville, Iowa.

FOR SALE

Ten and Twelve horse traction engines,

\$300; 6 horse gasoline engine, \$150; 10 horse,

\$175; 13 horse, \$275; 16 horse, \$275; 6 horse

engine and boiler, \$100; 10 horse, \$150; 6 horse

new boiler and engine \$135; two feed mills,

\$25 each. New boilers, all sizes, made to

order; second-hand boilers and engines, from

\$3 to 100 horse.

D. L. CASEY MACHINE CO., Springfield, O.

WANTED

SECOND HAND BAGS

ANY KIND—ANY QUANTITY—ANY WHERE.

I Pay Freight. Write for Prices.

GEO. T. KING, Richmond, Va.

WANTED

Bills to Collect

in all portions of the United States. No col-

lection, No Charge. Agents wanted every

where. 25 years' experience—PAID TO

COLLECT—ANY QUANTITY, 211 Main St., Rich-

mond, Va.

WITH THE ADVERTISERS.

This is the third month that we have run our Want Ad Column and it has proved to be a very popular, cheap and effective advertising medium. It will be found each month at the end of the single column advertisements.

The Lewisiana Farm offers the services of a "Supremacy", blood brother to Major Delmar.

The Palmetto Farms are now advertisers in this number. Red Poll cattle are offered this month.

Colfax Schuyler offers high-class poultry and eggs.

The Bowmont Farms resume their advertising with this issue. Large Yorkshire hogs are offered.

Potter & Williams, the well-known Buffalo commission merchants, have a card on another page.

Red Poll Cattle, Duro-Jersey (Red) Swine and Rhode Island Red fowls are advertised by J. H. Hatfield in this number under the heading "The Three Reds."

Attention is invited to the advertisement of L. G. Jones, in which he offers Essex pigs and Southdown sheep.

The International Stock Food Company has a prominent announcement on another page.

Cooper's Sheep Dip is advertised as usual with this season.

The Hay Press men are out in large numbers in this issue. Look up the advertisements, get their catalogues and select your press early in the season. Don't wait until you need it.

Heebner & Sons start the season's advertising with this issue. Their line of machinery is well known to scores of our readers.

Look up the announcement of the Richmond Buggy and Wagon Co. on another page.

The Watt Plow Co. is a liberal user of space in this issue. Look up their advertisements.

Gilbert Brothers & Co. have a prominent announcement elsewhere in this number.

David Wallerstein & Co. have a couple of advertisements in this issue. Parties who have wool to sell or desire to purchase black peas will do well to consult this firm.

C. H. A. Dissinger & Bro. are advertising their well known gasoline engines this month.

W. L. Dechow, Proprietor of the Cedar Rapids Farm, has an announcement in another column to which attention is invited.

Baldwin & Brown are new advertisers in this number. They advertise all kinds of hardware, Cement Drain Tile, etc.

A prominent announcement of the Virginia State Fair will be found on another page. Particular attention is invited to it.

The Ashton Starke Implement House is advertising the Old Dominion Grain

MORE AND BETTER CIDER

from less apples and more juice from less grapes are produced with our presses than with any other press made. The extra yield of juice soon pays for the press. A

HYDRAULIC CIDER PRESS

for custom work in your locality will prove a money-maker. Various sizes, hand or power, 25 to 300 barrels per day. Presses for all purposes. Also Steam Evaporators, Apple-hutter Cookers, and Gasoline Engines

Fully Guaranteed. Catalog FREE.

THE HYDRAULIC PRESS MFG. CO.

NO. 55 MAIN STREET, MT. GILEAD, OHIO.

E. H. WINE, HARRISONBURG, VA.

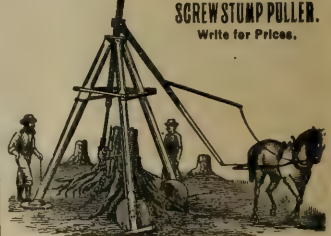
HERCULES Stump Puller



Clears an acre of heavy timber land each day. Clears all stumps in a circle of 150 feet without moving or changing machine. Strongest, most rapid working and best made. **HERCULES MFG. CO., 411 17th St., Centerville, Iowa.**

THE IMPROVED SCREW STUMP PULLER.

Write for Prices.



Chamberlin M'tg Co., Olean, N. Y., U. S. A.

THE GENUINE SMITH STUMP PULLERS



W. SMITH GRUBBER CO., LACROSSE, WIS. U.S.A.

ARTESIAN WELL

Contractors.

DEEP WELL DRILLING a specialty.

Estimates made free of charge in all localities. If you want any work done write

M. B. SCHAILL, Michaux, Va.

Well Drills

For Horse, Steam or Gasoline Power

Well Augers

For Horse Power

Address

LOOMIS MACHINE CO.

TIFFIN, OHIO



MANLOVE SELF-OPENING GATE

ALWAYS IN ORDER.

This gate can be placed at any driveway entrance, attached to ordinary posts and soon pays for itself in time saved.

It is opened or closed by any vehicle without assistance or stopping. By its use run-away accidents are avoided. Machinery is all above ground and so simple it never gets out of order.

It adds to the beauty, value, safety and convenience of any home. Address MANLOVE GATE CO., 272 E. Huron Street, Chicago, Ill.



PAGE POULTRY FENCE

COSTS LESS erected than common netting; fence poultry in and stock out; requires no boards and but few posts; never sags, bays, or buckles, and outlasts the posts. Complete descriptions, prices and comparison of costs furnished on request. Write today.

Page Woven Wire Fence Co., Box 5117, Adrian, Mich.



LAWN FENCE

30 beautiful designs cheap as wood. Large catalogue free. Special prices to churches and cemeteries.

Ward Fence Co., E. Meridian St., Portland, Ind.



Wire Fence 29c

48-in. stock fence per rod only. Best high-tension coiled steel spring wire. Catalogues, testimonials and samples FREE. Can be ordered at wholesale. Write today. MASON FENCE CO. Box 40, Leesburg, O.



FENCE STRONGEST MADE.

Bull stock-chicken safe. Sold to the Farmer at Wholesale Prices. Fully warranted. Catalogue free. COILED SPRING FENCE CO. Box 32 Winchester Indiana.

B-B FENCE STAYS

Beats all Farm Fence at your price. Address B. B. FENCE CO., Box 60, Peru, Ind

CEMENT POSTS

Cheaper than wood, make your own on a Hercules Post Machine. Also Building Block Machine. Catalogue free. — HERCULES MFG. CO., Dept. A101, Centerville, Iowa.

Save The Posts

Old field pine made to last longer than cedar or locust by creosoting with dead oil coal tar. The creosoting of lumber makes it practically indestructible, stops all rot and is absolute death to all insects. Write for prices to the NORFOLK CREOSOTING CO. Norfolk, Va."

WOOL BAGS.

Several thousand for sale cheap. GEO. T. KING, Richmond, Va.

Drill, which is one of their specialties.

The advertisement of C. L. Shenk, a well known Valley poultryman, was accidentally omitted from our last number. It will be found in this issue and we invite attention to it.

R. D. White, Manager of the Royal Orchard is offering some finely bred Hampshire Down Rams.

Bairoth Brothers resume the advertising of their engines with this issue.

W. Stanley Burt, the Michigan Real Estate man, is anxious to list Southern properties. Look up his ad.

The International Harvester Co. has an attractive advertisement of its splendid hay press on another page.

Annefeld Farms, breeders of Herefords and Berkshires, have a couple of advertisements in this issue, to which attention is invited.

Note the change in the advertisement of the Baltimore Farms.

GOOD HOUSEKEEPING.

BROILED SPANISH MACKEREL.

Your fish is much better if just out of the water. Wash and split in the middle lengthwise, sprinkle salt and a little pepper on it and lay it on a griddle hot, but not very hot, broil the raw side first and when brown turn and cook the other side. See that your dish is hot and lay the fish on it, butter generously and garnish with parsley and sliced lemon.

BAKED CRABS.

Use the canned crab or the fresh for this. If the fresh are to be used, boil them, remove the legs and shell and pick the meat to pieces. To three cups of meat add two cups of bread or cracker crumbs, salt, pepper, a cup of chopped ham. Butter your pudding dish and arrange the mixture in it adding lumps of butter to the top and pour a small quantity of water over it, bake, covering the top with a pie plate first and removing it five minutes before serving.

SARATOGA CHIPS.

You can get a little machine for slicing these in any department store for fifteen cents. It slices the potatoes any thickness, or thinness, and saves a great deal of trouble.

Slice the potatoes very thin and put them on ice or drop in ice water for a while. Take them out of the water and dry on a cloth. Have the frying pan half full of boiling lard. Drop the slices in one at a time. Let them stay till they are a brownish yellow and take out with a strainer. Lay them on brown paper in the warmer, sprinkle salt on them just as you take them off the fire.

STUFFED POTATOES.

Select moderate sized potatoes of uniform appearance. Bake them in the oven without peeling until thoroughly done. Cut a small piece off the top of each and with a small teaspoon scoop out all the inside, be careful not



WHAT DO YOU SAY?

Several hundred thousand farmers say that the best investment they ever made was when they bought an

Electric Handy Wagon

Low wheels, widest tires, easy work, light draft. We'll sell you a set of the best steel wheels made for your old wagon. Spoke united with hub, guaranteed not to break nor work loose. Send for our catalogue and save money. ELECTRIC WHEEL CO., Box 146 - Quincy, Ill.



ARE YOU THINKING OF BUYING A BUGGY?

If so, don't fail to get our beautiful Catalogue before purchasing. It contains all the latest Buggy and Carriage news and styles and descriptions of every kind of vehicle and harness. In fact, it is a guide to correct Buggy buying. May we send it? If in town, drop in and inspect our stock. We can please you with prices and terms.—RICHMOND BUGGY & WAGON CO., 1433 E. Main St., Richmond, Va.

The Dairy Problem Solved, and Solved Rightly.

Since man first began to milk cows, the problem of how to make the most dollars from them has been up for solving. After centuries of experience the way has been discovered.



An Easy Running Empire Cream Separator

will get these dollars for the cowowner, and will get them all. This is no experiment, it is an actual fact proven by years of experience by farmers the country over.

You want to know why; we want to tell you why. Write, and get our free books on dairying. Read these; then investigate the Empire. The result can only be one thing, a complete proof that our statements are true.

Empire Cream Separator Co., Bloomfield, N. J. Creamery Churn Mfrs., Agents, Louisville, Ky.



DAVIS LOW DOWN SEPARATOR

Goes direct from factory to you. No state agents or traveling salesmen to pay. Straight factory prices. And it's absolutely the best.

Easiest to clean, easiest running, simplest separator on earth. We guarantee that with a Davis your profits will increase \$10 per cow while cutting your labor in two.

Freight prepaid. Send for money saving catalog No. 129 right now and investigate.

DAVIS CREAM SEPARATOR CO., Chicago, Illinois.

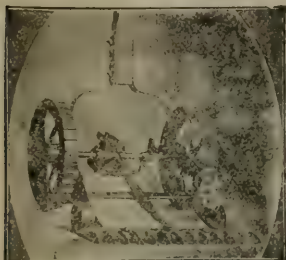
563 North Clinton St., Chicago, Illinois.

Clipper Lawn Mowers

Will cut short grass, tall grass and weeds. If your dealers have not them here is the price.

No. 1-12 in. \$5.00 No. 2-15 in. \$6.00
No. 3-18 in. \$7.00 No. 4-24 in. \$8.00
Pony 24 in. \$18.00.

Send draft or money order.



CLIPPER LAWN MOWER CO., Dixon, Ill.



C. H. A. DISSINGER & BRO., Wrightsville Pa.

BUY DIRECT

and save dealers profit. Vertical, Horizontal, and Portable Gasoline Engines. Pumping outfits a specialty.

Our Engineers to do all we claim for them or your money back.

Refunded. Write to-day
50-56 Fisher St., Springfield, Ohio.

Let Us Tell You Why. We want to send you our big Free Catalogue—just of the press. It tells why the **American Manure Spreader** is the best fertilizer value on the market. With the catalogue goes our booklet on the Value, Care and Application of Manure. It's a fertilizer story well told by "a man who knows." Write for these two books today—they're free. **American Harrow Co., Detroit, Mich.**



LAWN FENCE

Many designs. Cheap at wood. 35 page Catalogue free. Special Prices to Contractors and Churches. Address **COILED SPRING FENCE CO., Box Q, Winchester, Ind.**

Water Problem Solved

Machine for domestic well making. Cheap—by half. Most practical of any. Catalogue free.—Koger & Sons, Rogersville, Tenn.

FARM TELEPHONES

How to put them up—what they cost—why they save you money—all information and valuable book free write to J. Andrus & Sons, 934 W. Water St., Milwaukee, Wis.

Mention The Southern Planter when writing advertisers.

to break the skins and covers. Cream the potatoes with salt, pepper, butter and a teaspoon of cream to each potato, and a few drops of onion juice, pack all this back into the shells replace the tops and let them get very hot again for lunch.

CORN FRITTERS.

Score eight large ears of corn and cut it off with a sharp knife else grate it with a coarse grater. Beat three eggs, add one cup of rich milk, two heaping teaspoons of flour, salt, pepper and a tablespoon of butter. Mix in the corn and drop into hot fat a tablespoonful at a time. Good for breakfast.

CORN PUDDING.

Eight ears of corn, cut from the cob, add one pint of milk, three eggs beaten separately, three tablespoons of butter, a teaspoon of sugar, a teaspoon of salt, pepper to taste, teaspoon of cornstarch. Mix all these ingredients well and bake in a deep pudding dish until a light brown.

ORANGE ICE.

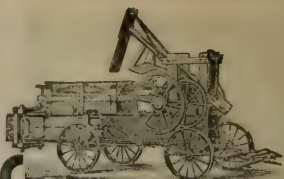
Select the red thick skinned oranges. Eight oranges will make a gallon and a half of ice, with two lemons added. Dissolve four tablespoons of cornstarch in a cup of cold water, then pour on it a gallon of boiling water, add six cups of sugar. Grate the rind of the oranges and lemons very carefully so as only to get the yellow part, the white part makes it bitter. Add this to the mixture when it is almost cold and when you put it into the freezer add the juice. Freeze and let it set for two hours to ripen.

CHERRY PRESERVES.

The cherries for preserves should be seeded carefully by hand, the seeders crush and tear them too much. Save the juice and after weighing the fruit allow one pound of sugar to each pound of cherries. Boil the sugar and juice to a thick syrup, then put in half the fruit and let them cook until nearly done, take them out and spread on dishes in the sun, put in the other half let them stew as long as the first half did and take them out and lay on dishes too. Then boil the syrup slowly, skimming off all impurities. When the cherries are cold put them back into the syrup and boil a short time. Pour them into a tureen or bowl and let them get cold put them into glass jars and keep them in a cool dark place. If wax cherries can be had they are always the best.

RASPBERRY JAM.

Mash the berries and add a very little water, let them boil until reduced to a thick pulp, stirring all the time (if you keep an asbestos mat on top of the stove you will find that you need not stir any thing quite so much). When it seems done, add three quarters of a pound of sugar to each pound of fruit and let it boil twenty minutes longer. Put into jelly glasses or small jars and when cold paste paper over the tops.



IF YOU HAD A BALING PRESS

You could not only increase the value of your own products, but make a profit on your neighbor's crops as well. Every community produces an abundance of material that is worth more money baled.

Get Dederick's Book

Sent Free.

It tells you how to turn waste products into money. How to make most money baling Hay, straw, wood, Hides, Vices, etc. It describes a line of presses that have been awarded highest honors everywhere. This valuable book together with annual report on Hay crop sent free on application.

P. E. DEDERICK'S SOCS, 31 Third St., Albany, N.Y.

STEEL 15 TONS A DAY HAY

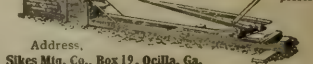
The Gen. Pat Circle 14x18 Steel Baler at \$145 each to h. Quincy, is the greatest value ever offered in a baling machine. Large feed-opening, power head with gear baling pressure out of every pound of horses' pull, quick rebounding plunger, allowing two charges to each circle of the drum and brake device which relieves strain from the rebound, makes it easier for men and horses and capacity greatest. Our book (sent free) contains particulars of over 15000 bales after day with the same in and out. Send in your order with draft and we will ship at once. As guaranteed or money refunded.

BALER 14x18 FULL CIRCLE \$145.00

Geo. Ertel & Co., Quincy, Ill.

RED RIPPER HAY PRESS

Guarantees power, speed, simplicity, durability, convenience and clean finish. Full circle, double crank. Only press which regulates weight of bale—no confusion. Write today for lowest showing low farmers' prices.



Address, Sikes Mfg. Co., Box 19, Ocala, Fla.

SIMPLEX PRESS

You Best from the 12 HORSEPOWER FACTORY CLEANER, BETTER CURED HAY. SCATTER NO HAY IN HANDLING, RAINING OR STACKING. RISK OF BAD WEATHER. DAMAGE CUT DOWN 75 PER CENT. HARVEST WITH ONE-HALF FORCE AND ONE-HALF TIME REQUIRED IN SINGLE BALE WORK. YOU SAVE DIRECT FROM THE WINDROW. STACK OR IN BARN AS DESIRED. CATALOG FREE.

LITTLE GIANI HAY PRESS CO. DALLAS, TEXAS.

HAY PRESS \$65

Simplex horse power press, lightest, simplest press built. Great strength, bales anything, four to eight tons a day. Full guarantee. Postal us today for free catalogue. Read Mfg. Co., 21 Fullford St., Kalamazoo, Mich.

"WILLIAMS" Write for special offer to introduce our PUMP

patented pump. A Wooden Pump made of iron. Guaranteed. All repairs done quickly above ground.

"No Trick" "To Fix"

"Williams" Pump Co., 467 Harrison St., Indianapolis, Ind.

**THE
MAJESTIC**



ROTARY WASHER
A HOUSEHOLD NECESSITY.

BECAUSE:
It is the best washer on earth.
It's Ball-bearing, and almost runs itself.
It is made of white cedar with electrically welded hoops sunk in the wood.
We are the largest manufacturers of woodenware in the World, and can make the BEST CHEAPEST.
Write for Catalogue.

The Richmond Cedar Works,
Richmond, Va.

Make Your Idle Money Earn Your Interest

Write the **FIRST NATIONAL BANK** of **RICHMOND, VIRGINIA** for information concerning its certificate of deposit, so arranged that one per **MONTHS** through your nearest bank or store.

Our experience proves this form for savings to be the most satisfactory plan yet devised for deposits of \$100.00 or more.

Our Capital and Surplus is

ONE MILLION DOLLARS.

JOHN B. PURCELL, President.

JNO. M. MILLER, Jr., Vice-Pres. & Cashier.

CHAS. R. BURNETT, Assistant Cashier.

J. O. JOPLIN, Assistant Cashier.

FARMERS

Insure Your Buildings.

LIVE STOCK, PRODUCE, &c.

Write for booklet giving plan and explaining how you can become a member of the . . .

Farmers Mutual Benefit Ass'n.,

thus securing cheap fire protection. Property insured \$500,000; average cost per \$1,000 per year, \$6.00. Estimated Security, over \$1,000,000.

Memberships and risks limited to Eastern Va.

CHAS. N. FRIEND, Gen. Agent, Virginia Division.
CHESTER, VA.

ORGANIZED JANUARY 9, 1899

ton's have the facilities, the capital, the spirit of fair play and they are trading directly with the people. Their vehicles go out for thirty days' trial; that is, for thirty days of real free trial, with no money paid, no deposit, no notes given. You are absolutely under no obligations to buy at the end of the thirty days if the vehicle you have selected and ordered shipped to you does not prove entirely satisfactory. Even after the bargain is made, the guarantee of the Company follows the vehicle for two full years. If any defect should develop in that time the Company agrees to make it good or return the purchase money. And a standing bank deposit of \$25,000 for the benefit of the purchasers, makes the Company's guarantee something more than a mere boast. If you need anything in the vehicle line—buggy, spring wagon, surrey, phaeton, etc., the Anderton factory is a good place to look to.

ELI HAY PRESSES.

With this issue the regular annual advertising of the Eli Hay Presses begins. Eli presses have long been well known to raisers and balers of hay. The Collins Plow Company of Quincy, Ill., make them in many styles and sizes, near forty, we believe, in wood and steel, horse and belt power, ranging in capacity from the smallest size to the power press which will bale 40 tons every ten hours. The Eli presses should certainly not be overlooked by anyone about to buy. If you need a press read the advertisement and send for the Company's catalogue.

DEMAND FOR LOWER PRICED HIGH GRADE CREAM SEPARATOR.

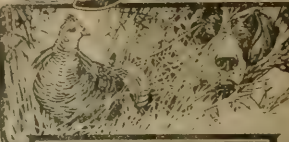
This demand has been met by a well known and long established cream separator manufactured by Davis Cream Separator Co., 56-B North Clinton St., Chicago.

The material is of the highest grade and the machine is one of the simplest on the market and the easiest to clean, run and understand. This company gets the price down by cutting out traveling salesmen, wholesale house and jobbers' commissions and state district agents. When you deal with them you deal direct with the factory. As their catalog states "There is no one between you and us." Their new catalog is out and is very thorough and complete, describing their liberal selling plan and the construction of their machines fully. A copy will be mailed free upon request to any reader of this paper, if you send them a postal or in a letter say, "Send your money saving catalog, No. 126"—they will gladly send one together with prices.

Alamance Co., N. C., Feb. 16, '06.
Every farmer ought to have the
Southern Planter.

EDGAR LONG.

U.M.C.



SHOT SHELLS

Are 'Money's Worth' Shells

A single trial makes you a **U.M.C.** Shooter for life. Ask your dealer for Nitro Clubs or Arrows, loaded for all kinds of shooting. Catalogue free.

U.M.C. cartridges are guaranteed, also standard arms when U.M.C. cartridges are used as specified on labels.

THE UNION METALLIC
CARTRIDGE COMPANY
BRIDGEPORT, CONNECTICUT
Agency: 213 Broadway, - - New York

"Feeds and Feeding"

**Prof. Henry's Great Book for
Farmers and Stockmen.**

Delivered anywhere for - - \$2.00

With the **SOUTHERN PLANTER**, 2.25

CANNING OUTFITS.

We make and sell them to work on cook stove or furnace of all sizes and prices for either.

HOME OR MARKET CANNING

The best outfit yet invented. The best book of instruction ever published. We start you in the canning business. Write for catalogue and circular of valuable information. **THE RANNEY CANNER CO., Chapel Hill, N. C.**

FRAZER

Axle Grease

Best in the world.

Its wearing qualities are unsurpassed, actually outlasting 3 boxes any other brand. Not affected by heat. **Get the Genuine.**
FOR SALE BY ALL DEALERS.

Chemical Analyses

of MINERALS, FEEDING MATERIALS, WATER and other products made at reasonable rates. Correspondence solicited. **J. B. WEEMS Ph. D., Crews, Va.,** Expert in Agriculture and Industrial Chemistry.

BAGS

FOR EVERYTHING:
NEW OR SECOND-HAND;
SOLD OR RENTED.
Write for prices.

RICHMOND BAG COMPANY, Richmond, Va.



WE'LL PAY THE FREIGHT.
and send 4 Heavy Wagons, New Tire Co. \$17.75. With Rubber Tires, \$18.50. 1 mfd. wheels \$4 to 4 in. tread. Top Buggies, \$25.75. Harness \$4.25. Write for catalog. Learn how to buy direct. Handle Wheels \$4.75. Wagon Umbrella FREE. W.V. BODER, Cincinnati, O.

DEATH TO LICE

Lambert's
"Death to
Lice"

10¢ kills all poultry vermin, lice, ticks, mites on sheep or swine on plants. Ten get results immediately. Sample 10¢; 100 sent postpaid 60¢; 100 sent by express \$1.00.

THE O. K. STOCK FOOD CO.,
451 Monon Bldg., Chicago, Ill.



Young Man

Train for Business.

There's room and a good salary in the banks and big business houses for young men with a good sound for business training and a whole lot of energy and ambition. If you are ambitious we will furnish you with a commercial training that will place you in a position to successfully cope with the problems of the busy business world. Write our nearest address for a copy of our catalogue—is free.

MASSEY BUSINESS COLLEGES.
BIRMINGHAM, ALA. HOUSTON, TEX.
MONTGOMERY, ALA. RICHMOND, VA.
COLUMBUS, GA. JACKSONVILLE, FLA.

MAKE A CHOICE

BOOKKEEPING and SHORTHAND offer splendid opportunities; but thorough and comprehensive courses are essential.

YOUNG MEN, YOUNG WOMEN, take our courses and prepare yourselves for business success. **TEACHERS,** spend your vacation months profitably.

Write us at once for **SPECIAL RATES** (about 1-3 less than ordinary cost), and new literature on spring and summer work.

PIEDMONT BUSINESS COLLEGE.
Lynchburg, Va.

DRAUGHON'S Business Colleges

24 Colleges in 15 States. POSITIONS secured or money REFUNDED. Also teach BY MAIL. Catalogue will convince you that Draughton's is THE BEST. Call or send for it.

RALEIGH COLUMBIA and NASHVILLE

WANTED!

ALL KINDS OF

LIVE WILD BIRDS AND ANIMALS

Particularly Deer, Wild Turkeys, White Squirrels, Ducks, Swans, Bob White Quail, Grey Squirrels, Bear, Baby Racoons, Foxes, etc.; \$5 each paid for Wild Turkeys.

DR. CECIL FRENCH, Washington, D. C.



LEARN HOW TO EARN \$3,000 A YEAR.

FROG RAISING. A business that starts on small investment and brings large returns. Our new book gives you the practical knowledge. Price postpaid \$1.00. The book will teach you HOW TO BREED, FEED & RAISE FROGS.
MEADOWBROOK FARM, ALLENDALE, N.J.

SAN JOSE SCALE and other INSECTS killed by GOOD'S

Caustic Potash Whale-Oil Soap No. 1

Endorsed by U. S. Dept. of Agri. and State Experiment Stations. This soap is a Fertilizer as well as an insecticide. 40-lb. keg, \$2.50; 100-lb. keg, \$4.50; half barrel, \$9.15; 5-lb. per lb. barrel, \$25.15, etc. Send for Booklet, **JAMES GOOD, Original Maker,**
929-31 N. Front Street, Philadelphia, Pa.

THE NEW SELLING PLAN OF THE AMERICAN HARROW COMPANY.

A Wonderful Success.

Probably no big manufacturing concern in the country ever scored quite as big a success in changing their selling plan as has the American Harrow Company, of Detroit, Mich., during the past season.

For over 25 years this concern has manufactured the American Manure Spreader, the New American Cultivator, and the Detroit Tongueless Disc Harrow. They have always enjoyed one of the best reputations of any manufacturing concern in the United States.

In the manufacturing of their different implements they have never sacrificed the quality for price, and their machines have always been of the highest grade. This is particularly true of their celebrated American Manure Spreader.

This machine is not an experiment, but the finished product as the result of years of actual working tests, so that it is known to be one that will last and give good service for a life time.

A Manure Spreader is a special machine, and the question of fertilizing is an important one. And this question of fertilizing is closely connected with the sale of a Manure Spreader—and makes it unlike the sale of any other agricultural implement. The American Harrow Company have realized this point, and while for many years they sold Spreaders through the jobber and dealer, this last year they adopted a new Selling Plan—the plan of selling direct to the user of the machine, on Trial—and on Time.

Then in offering to sell their machines on trial—and on time—The American Harrow Co. have given the purchaser another form of guarantee, for surely they wouldn't dare sell machines on trial and on time, and taking the risk of sending out a machine, if it wouldn't stand up under their selling plan.

Now, the farmers who are interested in the question of fertilizing—and every thinking farmer must be interested—we would suggest that they write to the American Harrow Co., and get their books—not only their catalogue, but their booklet on the Value, Care and Application of Manure. These books are Free, and will be sent cheerfully on request. You can get them by addressing The American Harrow Co., Detroit, Mich. Simply say you would like to have their catalogue and literature. Their advertisements will continue to appear in this publication, both in large and small space.

Burke Co., N. C., Feb. 16, '06

I have not gotten one copy of the Southern Planter that was not worth several year's subscription.

MANLY McDOWELL.

Send Your Order For

Seeds

TO

DIGGS & BEADLES,

Seed Merchants.

RICHMOND, - VA.

We are Headquarters for High Quality Seeds at Reasonable Prices.

Cow Peas, Soja and Field Beans, Rape, Sorghums, Insecticides, Poultry Supplies, Fertilizers and everything carried by an up-to-date seed house.

Write us for quotations stating varieties and quantities wanted.

Southern Agents for the Celebrated

Orchilla Guano

AND

Swift's Fertilizers.

Catalogue Mailed Free.

Agricultural Lime

50 Cts. Per Bag of 200 lbs.

We make a specialty of all grades of

LAND LIME.

Write for prices and full particulars,

T. C. ANDREWS & CO.,

NORFOLK, - - VIRGINIA.

Italian Bees.

The kind that do the hustling. Guaranteed to work on Red Clover. Spring Colonies furnished at \$5 each f. o. b. cars here, in your choice of Root or Dazembaker hives. The best comb honey hive on earth. Also Root's hives and supplies at Root's prices. Catalogue for the asking. Write me anything you wish to know about bees and their management.

J. E. Thomason,
Bumpass, Va.

ONLY ONE PRESCRIPTION.

Dr. M. S. Fielder writes: "I know Tetterine to be a radical cure for salt rheum, eczema and all kindred diseases of the skin and scalp. I never prescribe anything else in all skin troubles."

50 cents a box at druggists or by mail from J. T. Shuptrine, Savannah, Ga.

Bathe with Tetterine Soap, 25c.

Death to Hawks

Macnair's Chicken Powder
Kills Hawks, Cures Cholera.
FREES CHICKENS OF VERMIN

... AND ...

Makes Hens Lay.

To be convinced send for a package

Price 15c or 2 for 25c; Postage 4c per Pkg.

FOR SALE ONLY BY

W. H. MACNAIR, Druggist,

Tarboro, N. C.

"RARVA" MEAT MEAL

Is a meat-builder and bone-maker;
clean, pure, appetizing and odorless.
It promotes a strong, healthy and
rapid growth. It is therefore

JUST THE FOOD FOR GROWING
CHICKS.

Sack 100 lbs. \$3.00

SEND FOR SAMPLE

RICHMOND ABATTOIR

6TH & CARY STS.,

BOX 267 DEPT M.

RICHMOND, VA.

Chicks and Chickens

We carry a full line of FEEDS, fresh
stock and right prices.

Lice powders and paint.

Special and staple grains for young
and old stock.

Burnt wheat \$1.05 per 100 lbs.


W. J. TODD, 424 N. 6th St., Richmond, Va.



**COOPER
DIP**

250 Million Sheep
Dipped in it Every Year.

Has no equal. One dipping kills ticks,
lice and mites. Increases quantity and
quality of wool. Improves appearance
and condition of flock. If dealer can't
supply send \$1.75 for \$2 (100 Gal.) Pkt. to
FIRELL LADD & CO., Richmond, Va.



**PRUSSIAN
HEAVE POWDERS**

A guaranteed cure for Heaves, Cough,
Distemper, throat and nasal troubles.
Dealers 50 cents. Mail 60 cents.
PRUSSIAN REMEDY CO., ST. PAUL, MINN.

A WONDERFUL BUSINESS CONCERN.

How the Chicago House Wrecking
Company Swings Million Dollar
Deals and Sells Goods to its Custom-
ers at less than the cost of Manu-
facture.

The Chicago Wrecking Company is
the largest concern of its kind in the
world and the business done by it
runs away up in the millions every
year. While it has bought and wrecked
every world's fair since 1893 includ-
ing the Chicago, Buffalo, Omaha and
St. Louis Expositions, its business is
not confined to the wrecking of houses
by any means. This great concern
buys bankrupt stocks of goods of all
kinds at sheriffs' and receivers' sales
all over the country and supplies
hundreds of thousands of customers
with everything needed for the farm
and home. It buys in such immense
quantities and is able to swing big
deals that no other company can
handle, that in most cases this com-
pany can fix its own price in buying
its goods and can therefore supply its
customers with goods at less than the
actual cost of manufacture. There
isn't an article that goes onto the farm
or into the home that this company is
not able to supply to its customers at
a great saving of money.

No one who buys articles for the
farm and home can afford to over-look
this opportunity to obtain all that is
needed at such a great saving. As it
costs nothing to get their catalogue,
you should write for it without delay.
The Chicago House Wrecking Com-
pany is saving its customers thou-
sands of dollars every week. Why
not you?

Send your name and address to-
day to the Chicago House Wrecking
Company, 35th and Iron Streets, Chi-
cago, Ill., and their large illustrated
catalogue will be mailed you free of
charge showing these thousands of
articles and the wonderful special bar-
gains that mean dollars in the pocket
to every one who buys from them.

ABSORBINE REMOVES THOROUGHPIN.

Mr. Bernard Reilly, R. F. D., No. 1,
Elkton, Mich., writes under date of
Dec. 22, 1905: "I have used one bottle
of Absorbine for a thoroughpin and
it took off the bunch." Absorbine
works in a quiet manner—does not
blister or remove the hair and you
can use the horse during treatment.
It will remove a bunch without incon-
venience the animal or yourself, \$2.00
per bottle at your druggists, or sent
direct express prepaid upon receipt of
Price. W. F. YOUNG, P. D. F., 109
Monmouth St., Springfield, Mass.

Granville Co., N. C., Feb. 25, '06.
I enjoy the Southern Planter very
much and consider it the best paper
of the kind I know.

C. H. CHEATHAM.

SPAYING

Spay Your SOWS and
OTHER STOCK with the

Pronto Process

No Cutting, Pain or Danger. No Knife
Used. Absolutely No Loss. Animals grow
larger and fatten easier. Racing Mares,
Dogs and Pet Stock restrained without
injury. EASY TO APPLY. Book No. 18
on stock spaying SENT FREE. Trial Box
spays TEN SOWS. Price \$1.00 postpaid.
Try it and increase your profits.

Pronto Spaying Company,
Jackson Park Station, Chicago, Ill.



A GREAT DISCOVERY.

DROPSY

CURED with vegetable
remedies; entirely harm-
less; removes all sym-
ptoms of dropsy in 8 to 20
days; 30 to 60 days effects
permanent cure. Trial
treatment furnished free
to every sufferer, noth-
ing fairer. For circulars
testimonials and free
treatment, write
Dr. H. H. Green's Ssa.
Box 8, Atlanta, Ga.

COLLEGE OF AGRICULTURE AND EXPERIMENT STATION, BLACKSBURG, VA.

BEEF CATTLE.

ANGUS, 2 bull calves of this breed for sale,
for immediate delivery. These are well-
bred calves and are growthy individuals.
SHORTHORN, one red bull calf for sale for
immediate delivery. This calf has an excel-
lent coat, and is a smooth individual of
good quality. One roan bull calf, a grand-
son of Whitehall Sultan for sale for sum-
mer delivery.

DAIRY CATTLE.

HOLSTEIN-FRIESIAN, 2 bull calves of De
Kol breeding for sale for immediate de-
livery. These calves are from extraordi-
narily good cows; the dam of one being
recorded in the Advance Registry.
This is a good opportunity to secure a bull
calf of excellent breeding for a reasonable
price.

SHEEP.

DORSET, we are now taking orders for
spring lambs for late summer and fall
delivery. A few choice animals on hand
not contracted for.
For prices and other information, apply to
JOHN R. FAIN, Agriculturist.

Cottage Valley Offerings

Several 15-16 GRADE ANGUS Bull Calves
ready for service—will make fine bulls for grad-
ing up a herd.

A fine lot of thoroughbred O. I. O. pigs,
both sexes, at reasonable prices.

BULL CALVES out of Shorthorn Cows, by
Angus Bull.

Several registered Angus bull and heifer
calves.

S. L. Wyandotte Eggs, \$1 for 15.
W. M. WATKINS & SON Pres's, Saxe, Va.

A neat Binder for your bank num-
bers can be had for 25 cents. Address
our Business Office.



The first remedy to
cure Lump Jaw was

Fleming's Lump Jaw Cure

and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in

Fleming's Vest-Pocket
Veterinary Adviser

Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy.

FLEMING BROS., Chemists,
280 Eaton Stock Yards, Chicago, Ill.

Tuttle's Elixir

\$100.00 REWARD.

Cures all species of lameness, curbs, splints, contracted cords, thrush, etc., in horses. Equally good for internal use in colic, distemper, founder, pneumonia, etc. Satisfaction guaranteed or money refunded. Used and endorsed by Adams Express Company.

SOLD BY ALL DRUGGISTS.

TUTTLE'S FAMILY ELIXIR Cures rheumatism, sprains, bruises, etc. Kills pain instantly. Our 100-page book, "Veterinary Experience," FREE.

TUTTLE'S ELIXIR CO., 114 Beverly St., Boston, Mass.
Beware of so-called Elixirs—none genuine but Tuttle's. A word will silence them after only temporary relief if any.



Time tried. Stands every test. Spavin, Ringbone, Curbs, Splints, Lameness, Swellings—all readily yield to the great horse remedy.

ALWAYS ON HAND.

Morris Plains, N. J., June 14, 05.

Dr. B. J. Kendall Co.,

Dear Sirs:—Please send me your Horse Book. Kendall's Spavin Cure is the best I have ever used, have used it for three years and it always keeps it on hand. Respectfully, W.E. Teets.

\$1 a bottle. Six bottles for \$5. Greatest known remedy for family use. All druggists sell it. Accept no substitute. Our great book, "A Treatise on the Horse," free from druggists or

Dr. B. J. Kendall Co., Enosburg Falls, Vt.

THICK, SWOLLEN GLANDS

that make a horse Wheeze, have Thick Wind or Choke-down, can be removed with

ABSORBINE

on any Bunch or Swelling caused by strain or inflammation. No blister. No hair gone and horse kept at work. \$2.00 per bottle, delivered. \$3.00 free. ABSORBINE, JR., for manking, \$1.00 delivered. Cures Gout, Varicose Veins, etc. Book free. Made only by W. F. YOUNG, P. D. F.

109 Monmouth St. Springfield, Mass.

No More Blind Horses For Specific Ophthalmia, Moon Blindness and other sore eyes, Barry Co., Iowa City, Ia. have a cure.

CLEANING DODDER-INFESTED ALFALFA SEED.

F. C. Stewart and H. J. Eustace.

Recent experiments show that almost any alfalfa seed on the market may be made practically free from dodder and safe to sow by careful hand sifting through a wire sieve having twenty meshes to the inch. A cheap serviceable sieve for the purpose may be made by constructing a light, wooden frame about 12 inches square by three inches deep and tacking over the bottom of it twenty-mesh wire screen made of No. 32 (English gauge) round wire.

One-fourth to one-half pound of seed should be put in the sieve at a time and vigorously shaken during one-half minute. A man should be able to clean from five to ten bushels of seed per day.

Dealers in alfalfa should either sift all the seed they sell or else provide their customers with the means of doing the work themselves. Dodder is so troublesome a weed that no one can afford to take the risk of sowing unsifted seed.

The Station will furnish free samples of dodder seed upon request.

N. Y. EXPERIMENT STATION.

Ertel's Hay Press book is intended to answer all your questions about baling presses, and tell you just what points are necessary in a good hay press. No other catalogue or hay press book is so complete and gives you the details as this does.

The man, who is going to spend his money for a hay press and whose men and teams are to operate it, should read Ertel's book before purchasing elsewhere.

All you have to do to get it is to drop a postal card to Geo. Ertel Co., Quincy, Ill., who will send you the book free, without obligation on your part to purchase. Its 80 pages of hay press information will surely be worth the price of a postal to you.

A DEAD LOSS.

"See here, Aunt Dinah, I sent two brand-new shirts of my husband's to the wash last week, and you have brought only one back. Now, what have you done with the other?"

"Yes, Miss Lulu, ma'am I was coming 'round to the question of dat dar shut. You knows dat I ain't a pussen dat pretends to one thing and pretends to annuder, so Ise agwines to tell the truf 'bout dat shut. It was dis-a-way. My ole man he up and dies las' week, and de 'Burial Sassiety' dey didn't do nothing but covort 'round, an' I neber had any'ting to lay dat man out in. So I helps mysef to dat shut for a fac'. An' oh, Miss Lulu, honey, I jes wishes you could hab seen how dat nigger sot dat shut off!"—April Lippincott's Magazine.

Warranted
to give satisfaction.



GOMBAULT'S

CAUSTIC BALSAM

A safe, speedy and
positive cure for

Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a HUMAN REMEDY for Rheumatism, Sprains, Sore Throat, etc., it is invaluable.

Every bottle of Caustic Balsam sold is Warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials etc. Address

YEN L. WARREN-WILLIAMS COMPANY, Cleveland, Ohio.

SLOAN'S
50¢ LINIMENT
AND
\$1.00 CURES
HOG CHOLERA
SEND FOR CIRCULAR WITH DIRECTIONS
DR. EARL S. SLOAN 615 ALBANY ST. BOSTON, MASS.



EXTRA VIM

For your Horse.
Dr. Daniel's Renovator Powders

Give strength, make Blood act on the Kidneys.

TWO WEEKS TREATMENT SUFFICES.

Warranted to please or money back. Sold by any Druggist or Dealer, or sent by mail. Mention this paper and we will send free our 112 page Veterinary book.

DR. A. C. DANIELS,
172 Milk St., Boston, Mass.



DEATH TO HEAVES
NEWTON'S HEAVE AND COUGH CURE

A VETERINARY SPECIFIC

14¢ per bottle. One letter case

will cost you Heaves, \$1.00 per

qu. of Heaves, or express

prepaid. Send for booklet.

The Newton Remedy Co., Toledo, O.

Northern Virginia Farms

Of every class, adapted to Grain, Fruit, Dairy and Blue Grass, within five to thirty miles of Washington, D. C.

No. 80.—Contains 130 acres, 6 miles from R. R. Near McAdams, Pike 25 acres cleared, 55 acres in timber, land is a little rolling, a good quality of red clay, a good young orchard, just beginning to bear. Farm watered by stream and well. Comfortable 4 room house, 200 bushels of corn, stable for 4 horses, 1/2 mile to school, 1 mile to stores, church, P. O., and shops, situated in a good neighborhood. Price \$1,400, on easy terms.

No. 41.—26 acres; 10 miles from Washington, D. C.; 2 miles from an electric and steam railroad. Thirteen room house in nice shaded lawn, 2 cellars, well at house. Nice orchard, in full bearing. All necessary out-buildings in good repair. Price \$3,600.

No. 43.—50 acres; an elegant brown stone house, with 6 rooms, 2 porches. Three acres young orchard, in full bearing. All necessary out-buildings, in good repair. A large stone mill building, with 2 sets of corn burrs, has 25 foot water fall. Situated in a thickly settled and refined neighborhood. Mill is in thorough repair and doing a good local business. Price \$3,200.

No. 63.—616 acres, natural Blue Grass land; well fenced; elegant well water. Good 5 room house, with all the necessary small farm houses in good repair; good sheep barn 20x40. Thrifty young orchard of apples, peaches, pears and cherries. Land is all in grass, except about 40 acres that is in corn now. Close to schools, church, mill and post-office, four miles from railroad. This usually sends off from forty to fifty export cattle in September. It is located in a beautiful section of the county of Loudoun, 25 miles from Washington, D. C. Price, \$15.00 per acre, one-third cash.

No. 68.—A large market mill, new process, all modern improved machinery, cost about \$14,000, situated in one of the finest grain sections of Northern Virginia, two and one-half miles from railroad. Ample water power in ordinary seasons, but fitted up with a splendid boiler and engine to aid power in the event of a drought. For sale to settle an estate. Write for full description. Price \$7,500, on very easy terms.

Write for full information and price list of other farms.

No. 71.—260 acres; a fine body of white oak timber. This land is just rolling enough to drain well; it is a fine quality of land and is 5 miles from the R. R. This timber is estimated to cut from two to three thousand ft. of lumber to the acre. The land alone is worth more than I am asking for both, and a quick business man can buy this tract and make a fortune on the clear either the land or the timber. It will not be on the market long, at the price I am asking. Price \$15 per acre.

No. 76.—Contains 60 acres of good land, fronting on McAdams Pike, land a little rolling, but considered level, well fenced, about 10 acres in timber, 23 miles from Washington. Thrifty young orchard, apples, pears and pear, good 6 room house. Stable and other out houses all in good repair, 1/2 mile from store, P. O., mill and shops, in elegant neighborhood. Price, \$1,250.

No. 106.—Contains 330 acres; 250 acres cleared, and very well fenced, this was at one time one of the finest farms in its section; it is naturally a fine quality of soil, but has been rented for several years, and has the face knocked off it; it is a chocolate Clay Soil, which is easily improved, and will hold improvement after receiving it. 50 acres of rich bottom land on Bull Run river; the dwelling is a comfortable 6-room house, with all the other buildings in very good repair. This farm will be sold on very easy terms, and would soon pay for itself grazing cattle and sheep, 4 miles from railroad station, 1 mile from store and post-office. Price \$3,600.

W. E. MILLER, Herndon, Va.

INCONSIDERATE WOMAN.

The following extract from an obituary recently appeared in a rural paper. It was written by a child of the deceased. "In spite of all that medical skill and loving hands could do, she died without a struggle."—April Lippincott's.

DIFFERENTLY EXPRESSED.

Two groups of people were seated in the waiting-room of a railroad station. One consisted of a young man and two young ladies dressed in the height of fashion, the other, a man and his wife not so fashionably attired.

They had been there only a few minutes when a girl came in whose complexion was as nearly perfect as anything in this world ever is. While she was buying her ticket the young man remarked to the ladies with him:

"Isn't Miss Cransford a beauty? Her complexion is as perfect as a rose."

At the same time the other man clutched his wife's arm and whispered:

"Lord, Nan, hasn't that gal got purty hide."—April Lippincott's Magazine.

TOO WILLING.

A ducky wanted very much to propose to his lady-love but, strange to say, he hadn't the nerve. Some one suggested that he resort to the telephone, so he called her up.

"Dat you, Dinah?"

"Yaas," was the reply.

"Say, Dinah, I want ter ask yer somethin'."

"Yaas," again..

"Dinah, will yer marry me?"

"Yaas, who is it, please?"—April Lippincott's.

CIRCUMSTANTIAL EVIDENCE.

Jack was making a visit to his grandparents, who owned a large dairy. He had been forbidden to touch the tempting-looking pans of rich cream. One day, his grandmother caught him coming up from the cellar with a very suspicious white rim over his upper lip.

"Jack," she said severely, "I am afraid you have been disturbing my pans of cream."

"No, I haven't Grandma. I just ran my tongue gently over the top."—April Lippincott's.

USED TWENTY YEARS. DOES ALL THAT IS CLAIMED.

Triangle, Va., Nov. 21, 1905.
Gents: Enclosed please find a 2c stamp. Do me the favor to mail me your book, the Treatise on the Horse. I am using your Shavin Cure and have kept it in my stables for 20 years. It does all you claim for it.

Very respectfully,

R. EDGAR JONES.



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\$8 per Acre and up

with improvements. Good productive soil, abundant water supply and best climate on earth. Near railroad and good markets with best church, school and social advantages. For list of farms, excursion rates and our beautiful pamphlet showing what others have accomplished, write to-day to F. H. LA BAUME, Agri. and Indl. Agt., Norfolk & Western Ry., Box 1, Roanoke, Va.

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Virginia and Ohio Time

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Poultry Farm—well stocked with B. P. Rocks and S. C. B. and WHITE LEGHORNS, all equipment and buildings, dwelling house, plenty water and fruit on place. Splendid opening for any one wanting to start in the Poultry business. As much land as desired. TOPLAND POULTRY FARM, Box 218, Blacksburg, Va.

Farms, Timber lands

and TOWN PROPERTIES, Etc. Send for my new list of choice bargains in real estate situated in ROCKBRIDGE, BATH and AUGUSTA COUNTIES. All information cheerfully and promptly answered. Liverty, etc., free to those who mean business. J. W. GUINN, Goshen, Va.

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Our 10c. map, in four colors, shows a half million acres of the most desirable lands and waters in the United States. Our papers, which we send with the map, are full of Facts, Figures and Features, respecting the Eastern portion of Virginia, Near-the-Sea, of interest, use and benefit to the Home, Health, and Wealth seekers of the North, East and West, who want to secure homes or investments in a mild and delightful climate. Send 10c. in stamps for copy of map and papers. A. JEFFERS, Norfolk, Va.

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A SPECIALTY.

Write me your wants.

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In this list will be found prices on papers, magazines and periodicals which are most called for by our readers. We have club rates with nearly all reputable publications, and will quote them on request:

Dailies.

	With Alone. S. P.	
Times-Dispatch, Richmond, Va.	\$6 00	\$6 00
Times-Dispatch (without Sunday)	4 00	4 00
News-Leader, Richmond, Va.	3 00	3 00
The Post, Washington, D. C.	6 00	6 00
The Sun, Baltimore, Md.	3 00	3 40

Thrice a week.

The World, New York....	1 00	1 25
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Weeklies.

Times-Dispatch, Richmond, Va.	1 00	1 25
Central Presbyterian, Rich- mond, Va.	2 00	2 25
Southern Churchman, Rich- mond, Va.	2 00	2 25
Harper's Weekly	4 00	4 00
Breeders' Gazette	2 00	1 50
Country Gentleman	1 50	1 75
Hoard's Dairyman	1 00	1 30
Horseman	3 00	3 00

Semi-Monthly.

Kimball's Dairy Farmer...	1 00	75
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Monthlies.

The Century	4 00	4 25
St. Nicholas	3 00	3 25
Lippincott's	2 50	2 50
Harper's Magazine	4 00	4 00
Harper's Bazaar	1 00	1 40
Scribner's	3 00	3 25
American	1 00	1 35
Cosmopolitan	1 00	1 35
Everybody's	1 50	1 75
Munsey	1 00	1 35
The Strand	1 00	1 35
Madame	1 00	1 00
Argosy	1 00	1 35
Review of Reviews	3 00	3 00
Field and Stream	1 50	1 50
Women's Home Companion	1 00	1 25
Reliable Poultry Journal..	50	75
Industrious Hen	50	70
Poultry Success	1 00	75
Blooded Stock	50	65
Successful Farming	1 00	60
Southern Fruit Grower ..	50	85
Shepherd's Criterion	50	75
Commercial Poultry	50	75

When two or more publications are wanted, the price for them can be found by deducting 50 cents from "price with Southern Planter."

We cannot under any circumstances furnish sample copies of other publications.

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We have on hand, at all seasons, a fresh supply of pure Alfalfa seed, free from Dodder and all other injurious weeds. Our seed cannot be surpassed anywhere. Write to us at any time for either large or small quantities and we will be glad to quote prices.

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Mammoth Bronze turkey (famous National strain), from fine heavy breeders, headed by 45-lb tom. Barred Plymouth Rock and White Wyandotte eggs (Hawkins and Duxies), \$1.00 per sitting. Address LANDOR POULTRY YARDS, MISS C. L. SMITH, Prop., Croxton, Va.

WOODLAWN POULTRY YARDS.

Thoroughbred B. P. Rock, Plt Games, S. C. Brown Leghorns; eggs, \$1.00 for 15. Our yards composed of the very best blood found in the south. For the first orders received by June 10, we will give one of our new Baby Rump roses free with each order, which retails for \$2.00 each and will bloom the year round. Just think of a rose that will bloom such a long period. Circulars free, write us—E. W. JONES NURSERY CO., Woodlawn, Va.

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If you have laying strains of R. or S. C. BROWN and BUFF LEGHORNS, BARRED and BUFF ROCKS, R. I. REDS, WHITE WYANDOTTES, MINORCAS.

15 eggs \$1. My stock has been bred to lay and win, and it does it. Illustrated catalogue, 21 leading varieties, free. C. L. SHENK, Box P, Luray, Va.

Golden Wyandottes

EXCLUSIVELY.

Eggs for sale from this GRAND STRAIN OF WINTER LAYERS at \$1.00 per sitting of 15; \$1.75 per 30. Satisfaction Guaranteed.

No stock for sale.

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"Money in Poultry."



Our new 1906 book tells how to make it. Tells how to treat diseases. Feed and care for poultry successfully. Illustrates and tells all about 40 varieties FAMOUS THOROUGHbred FOWLS, with Low price on stock and eggs. Send 5c. in stamps to, JOHN E. HEATWOLE, Box L, Harrisonburg, Va.

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Brown Leghorn Eggs

\$1 per 25. R. I. RED and BUFF ORPINGTON Chickens, 2 year old Scotch Collie, female, pedigree for 34 generations; Collie pups. Mrs. C. H. BENNETT, Hollins, Va.

R. C. WHITE LEGHORN

eggs at a great reduction for the month of June.—FRED NUSSEY, Massaponax, Va.

PHOSPHATE ROCK.

(GROUND FLOATS.)

65 to 75 per cent. Phosphate of Lime, analyzing 25 to 35 per cent. Phosphoric Acid, the balance being Lime. Write for prices and book your order now. TOM D. CHRISSTIAN, Wyndham, Powhatan Co., Va.

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We desire to announce to the public that we have purchased the entire BILTMORE STRAINS of S. C. and R. C. WHITE LEGHORNS and S. C. BROWN LEGHORNS, acquiring all their prize winners, interest and will for said breeds; in addition to the fine strains that we have been carrying, BARRED PLYMOUTH ROCKS, WHITE WYANDOTTES, LIGHT BRAHMAS, WHITE and PARTRIDGE COCHINS, WHITE CRESTED BLACK SPANISH, BRONZE TURKEYS and MUSCOVY DUCKS and MAMMOTH ROUEN DUCKS.

We will be glad to quote you prices on stock and eggs.

ARE YOU LOOKING FOR PRIZE WINNERS
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**S. C. Rhode Island Reds,
Light Brahmas,
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**Plymouth Rocks,
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and S. C. White Leghorns?
Then order your eggs for hatching from

The Oak Grove Poultry Farm,

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Our birds won first, second and special prizes at the Madison Square Shows. Price—lat, pen \$5.00-2d, Pen \$3.00, and 3d, Pen \$2.00 for setting of 15. Incubator eggs \$10.00 per 100.

EGGS FOR HATCHING

B. P. Rocks, S. C. Brown Leghorns. Our birds are directly bred from 1st prize winners at N. Y., Boston, Phila., Pan America, Chicago, St. Louis and leading southern shows.

Eggs from Exhibition matings \$2. per 15, \$10. per 100. Eggs from Utility matings \$1. per 15, \$6. per 100. Two-thirds hatch guaranteed or sitting duplicated at half price.

Our business is growing! why? because we started with the best stock money could buy and have pleased our customers. Why not let us start you right with a setting of two of eggs. Hatch your winners now for next fall shows.

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500 CHICKS, some show birds
Some for utility.

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The dainty blouse made in lingerie style has really become an essential, and every new model is sure to be met with a hearty welcome. Here is an exceedingly attractive one that is simple withal and that can with equal success be made from lingerie materials, from the very thin and soft silks and such dainty wool fabrics as chiffon veiling and the like. In the illustration mercerized batiste is trimmed with Valenciennes insertion and with bits of embroidery executed on the material, but while this is an exceedingly smart combination, there is not always sufficient leisure to allow of so much work, and when this is the case, the yoke can be cut from some pretty all-over material, such as eyelet embroidery batiste and the like. In this instance the sleeves are in elbow length and are finished with the straight bands that are the accepted one of the season, but long ones can be substituted if for any reason they



5348 Fancy Yoke Blouse.

are preferable. Also trimming can be almost any banding. Lace is of course the preferred one for lingerie fabrics but there are a great many pretty braids and the like which are in every way appropriate for slightly heavier materials.

The waist consists of the fitted lining which can be used or omitted as material renders desirable, the yoke, the full front and the backs. These last are gathered and pointed to the yoke, the closing being made invisibly at the back. The sleeves are the full puffed ones that are preferred to every other sort.

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From Best American and Imported Strains. \$2.00 per Sitting; \$10.00 per 100 of following breeds.

S. C. Buff Orpingtons

White Plymouth Rocks

and **S. C. Black Minorcas.**

S. C. White Leghorns

\$1.50 per sitting,

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We breed only thorough-bred poultry of standard qualities, have 3000 healthy chicks hatched Feb. and March. Largest practical Poultry Farm in Virginia. **FOX HALL POULTRY FARM,**
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EXCLUSIVELY.

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Satisfaction guaranteed to every customer.

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PLYMOUTH ROCKS.

bred from the best layers. A few more pullets for sale. Eggs, \$1.00 per 15; \$1.75 per 30 or \$5. per 100. Satisfaction Guaranteed.

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Barred Plymouth Rock

Cockereels for sale. Apply to **HATTON GRANGE, Hatton, Va.**

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I am now booking orders for eggs from choice pens of **ROSE COMB WHITE WYANDOTTES, S. C. R. I. REDS and S. C. BUFF ORPINGTONS.** Write me for prices. Satisfaction guaranteed. Address, **FOREST PARK FARM, Charles W. Smith, Prop., Williamsburg, Va. Box 38.**

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From pure bred R. C. RHODE ISLAND REDS. Prize-winning strain at Chicago and Indianapolis Poultry Shows. \$1.50 per setting of 15 eggs. O. E. PETERSON, Pamplin City, Va.

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EXPRESS PREPAID ON TWO settings or more at this price. ALL STOCK GUARANTEED PURE BRED and of good Quality.

Send us your order and we will please you.

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Single Comb Buffs, exclusively. From June 1st, eggs for hatching from my best matings will be only \$1.50 per setting. Your opportunity.—B. S. HORNE, Keswick, Va.

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Exclusively. For the next 3 months, will sell eggs for \$1.00 for 15; \$2.00 for 50; and \$5.00 per 100. A few Cockerels and Pullets, from \$1.00 to \$2.00 each. These birds are well bred, and in fine condition. A bargain at prices named.—T. C. WARE, Clarksville, Va.

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Exclusively. We have a farm range flock headed by very fine males—all solid buff—and will sell eggs from same at \$1.00 for 15 or \$3 for 50. Will sell 2 very fine cocks to avoid in-breeding, at \$2.50 each. Two cockerels at \$1 each. Satisfaction guaranteed. All orders receive careful attention.

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ROSE and S.C.

RHODE ISLAND REDS.

C. Brown and White Leghorns, White Wyandottes, and mixed Plymouth Rocks.

75¢ \$1.00 per 15; \$1.75 per 30; 75¢ per 50; \$5.00 per 100. RIV-
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The quantity of material required for the medium size is $4\frac{1}{4}$ yards 21, $3\frac{3}{4}$ yards 27 or $2\frac{1}{4}$ yards 44 inches wide with 10 yards of insertion to make as illustrated, and $\frac{3}{4}$ yard 18 inches wide for the yoke and cuffs when these are used.

The pattern 5348 is cut in sizes for a 32, 34, 36 38 and 40 inches bust measure.

Double skirts are fashionable for the little girls as well as for the grown-ups and are exceedingly pretty and attractive made from the various dainty materials of the incoming season. This one is especially designed for flouncing or for bordered material but can, nevertheless, be utilized for plain stuffs, each edge being trimmed after any manner that may be preferred. In the illustration embroidered batiste is combined with plain for the waist, but there are a great many washable fabrics that are shown with flouncings to match and also a large number of pretty bordered veil-



5331 Girl's Dress with Double Skirt,
4 to 10 years.

ings and the like that make exceedingly attractive little dresses of a somewhat sturdier sort. Again, plain material can always be utilized and either braid or embroidery used as a finish.

The dress consists of the skirt and the body. The body is full and can be made over the lining or joined to a narrow yoke as liked. The berth is an exceedingly becoming one, falling in points at front and back and over the shoulders. The skirt is made with two flouncings that are joined one to the other and shirred at their upper edges then arranged over a narrow yoke.

The quantity of material required for the medium size (8 years) is 8

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and Black Minorcas

Exclusively. The two breeds that fill the egg basket. Eggs, 75c. and \$1 per setting. Satisfaction Guaranteed.

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To maintain the desirable qualities, improve the size, form and general appearance, as well as vigor, I have secured a magnificent WILD TOM, almost golden in plumage, perfectly barred wings, with my mammoth Bronze hens. Hardier and healthier turkeys are raised by continual crosses on wild turkeys.

Don't let this opportunity pass without improving your flock at such a small outlay; only \$5 for 9 eggs.

FOR SALE: B. P. Rock eggs, 30 for \$1.50 until Fall; 100 B. P. Rock hens, \$1 each. BERKSHIRE PIGS eligible to registry. E. F. SOMMERS, Somerset, Va.

EGGS--CHICKENS--PIGS

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Eggs from Imported Matings \$2 to \$3 for 15. 500 BIRDS for sale for next season's breeding. Special matings in pairs, trios or pens. Poland China Pigs, \$5.00 to \$7.50 each. Complete Pedigree at these prices. Registration fee \$1 extra to each animal if wanted. Everything first class. Money refunded if not as represented. Address,

FAY CRUDUP, R. F. D., Clarksville, Mecklenburg Co., Va.

BARGAIN SALE OF PURE BRED

POULTRY and BERKSHIRE PIGS

Owing to the dissolution of the co-partnership heretofore existing, we offer for sale: 50 S. C. BROWN LEGHORN Hens and Pullets at \$1, \$1.25 and \$1.50 each; will sell a single bird or mate pairs, trios or pens or larger lots if desired.

5 S. C. BROWN LEGHORN Cockerels.
10 R. C. BROWN LEGHORN Hens and Pullets at \$1 each.

10 BARRED ROCK Cockerels at \$1 and \$1.50 each.

10 Hens and Pullets at \$1 each.
A BREEDING PEN OF BARRED ROCKS,

5 hens and cock, Hens from Gardner & Dunning Strain, Cock direct from yards of A. C. HAWKINS, Lancaster, Mass.

25 S. C. WHITE LEGHORNS at \$10 per dozen or \$1 each.

10 LIGHT BRAHMA PULLETS, \$1.50 each; 3 Cockerels \$1.50 each.

1 large ENGLISH BERKSHIRE BOAR; Powhatan Chief, 91299 A. B. A.

1 Berkshire Sow; Pocahontas; 91208.

FOX TERRIER DOGS, male and female puppies now ready for shipment.

Cash must accompany all orders; send money by reg. letter, money order (payable Herndon, Va.), or personal check. POWHATAN POULTRY YARDS, Chantilly, Va. Telegraph and Express Office, Herndon, Va.

Princess Anne Co., Va., Feb. 17, '06.

I can sider the Southern Planter an up-to-date journal and well worth the price. A. G. SPAULDING.

WEALTH 59579.

RECORD, 2:10. Second in Race in 2:08½. Dark bay or brown horse, 16 hands high; weight, 1,200 lbs. Sired by Gambetta Wilkes, 2:19½, the greatest living sire, having 184 in the list, of which 14 have records of 2:10 and better. 1 dam Magnolia, dam of Wealth, 2:10, by Norfolk, 3:07, sire of Miss Nelson, 2:11½, and son of the renowned Nutwood, 2:18½. 2 dam Beck Collins, dam of Choctaw, 2:30, grand dam of Wealth, 2:10, and Maggie Campbell, 2:21½, by Woodburn Hambletonian, 1837. 3 dam Rebecca, thoroughbred daughter of Blucher, son of Antonio.

This is rich breeding and shows that WEALTH traces to rare ancestral lines; in addition, he has grand size, with beauty and elegance of form. When in training, WEALTH could show a terrific burst of speed, and to reel off quarters in thirty seconds (a two minute gait) was easily within his capacity. A race horse on the track, he has made good in the show ring by carrying off the blue ribbon on different occasions. WEALTH sires fine foals and transmits his own desirable qualities with uniformity.

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Fee, \$15 season; \$20 insurance. Address, S. F. CHAPMAN, Clifton Stock Farm, Gordonsville, Va.
Or, Col. W. H. Chapman, Richmond, Va.

World's Greatest Harness Horse

French Coach

Stallions and Mares

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Also breeding Jersey cattle, Duroc Jersey hogs and B. P. R. chickens. Visitors always welcomed.

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One sorrel mare with flax mane and tail, seven years old, weight about 1,000 lbs., strikingly stylish, qualities perfect. One chestnut hackney mare, seven years old, weight about 1,200 lbs., of fine action and fine appearance.

One pair bay mares, seven and eight years old, weight about 1,300 lbs. each, perfectly reliable in all harness.

One pair chestnut mares, seven and eight years old, weight about 1,150 lbs. each, very stylish and handsome drivers.

One pair black Percheron mares, five and six years old, weight about 1,800 lbs. each, qualities perfect.

One bay gelding, eight years old, weight about 1,450 lbs., a model worker.

W. M. WATKINS & SON, Saxe, Va.

LARGE CHESTNUT. SORREL HOBSE

5 years old, for sale; perfectly sound, well broken, rapid trotter, and saddle gait, handsome in appearance. Price \$300. J. S. RyLAND, Cedon, Va.

Always mention the Southern Planter or when writing advertisers.

yards of embroidery 12 inches deep with 1¼ yards of plain material 36 inches wide; or 4¼ yards 27, 3¼ yards 36 or 2½ yards 44 inches wide if plain material is used throughout.

The pattern 5331 is cut in sizes for girls of 4, 6, 8 and 10 years of age.

We can furnish these patterns at 10 cents each. Southern Planter, Richmond, Va.

HAS NOT LOST ANY HOGS SINCE HE GOT SLOAN'S LINIMENT.

Dr. Earl S. Sloan,
Boston, Mass.,

Dear Sir:—

My hogs had hog cholera three days before we got your Liniment which was recommended to me by a neighbor who was using it with success. I have used it now for three days and my hogs are almost well. One hog died before I got the liniment, but I have not lost any since.

A. J. McCARTHY, Idaville, Ind.

Watertown, Wis., Feb. 10, 1906.

Dr. R. S. A Tuttle,

I am a horseman and had charge of a barn where there were seventy-three horses. I always used your Ellixir and had good results. At the present time I am in Watertown, Wis., and cannot get your Ellixir as the druggists do not keep it, it is the best remedy I ever used so I wish you would try and get an agency in this city for Ellixir. Yours truly,
ELI J. HECK.

CAN YOU ANSWER THESE QUESTIONS?

Where did Alfalfa come from? What soil is best suited to Alfalfa? What are the advantages of growing it? How is it best harvested, cured and fed? What kind of grain should be fed with Alfalfa? How does it enrich the soil? How should Alfalfa be sown? What is the best method of selecting seed corn? How should it be stored? How can you improve the stand and increase the production of corn per acre? What is the best method of testing seed corn? What is a Germination Box? How is corn best prepared for the planter? What is necessary to get rid of the barren stalks? What are the best methods of cultivating corn? How can the wheat yield per acre be increased? What constitutes a good seed bed? Should clover be plowed under for wheat? Is corn stubble a good place for sowing wheat? How should wheat be sown in order to produce the best results? How should wheat be fertilized? Why does your soil run down? What are the leading elements of fertility? How can you secure them and keep them in the soil? How much fertility does each crop take from the soil? What is the actual value of farm manure? How should it be applied

I HAVE THE FINEST JACKS IN THE WORLD



and the greatest variety to select from. I will also sell you as good imported horses as ever crossed the ocean at prices from \$700 to \$1000. Write for catalogue.

V. L. DECLOW,

Cedar Rapids Jack Farm, Cedar Rapids, Iowa.

JACK (AT STUD) ALEXANDER.

Highly bred registered Kentucky black JACK with white points; 15½ hands; broad flat bone; ideal conformation; good middle; big well-formed feet. Mules cost less to raise and sell higher than horses. Why not breed to the best Jack in Va., and make money?

Pedigree and terms from CLARENCE PETTIT, Elko, Henrico Co., Va. (Old Pollard Farm.)



Write us your wants

J. F. COOK & CO., Lexington, Ky.

KENTUCKY MULES.

We are now taking orders for yearling and male colts for September and October delivery. We have a big supply of saddle and trotting stallions. Jacks, Jeanetts, Poland China and Tamworth hogs.

REDLANDS FARM

Shropshire Sheep

1 registered Shropshire Buck, very fine.
6 pure bred Shropshire yearling Bucks, also very fine. Address, AARON SEAY, Manager, Carter's Bridge, Albemarle Co., Va.



Edgewood Stock Farm.

DORSETS.

Ram lambs for June shipment. If you are in the lamb business you need one. J. D. Arbuckle and Sons, Greenbrier Co., Maxwelton, W. Va.

DORSET SHEEP

We purchased at the World's Fair, at St. Louis, a ram that was second at this show. We now have some of his lambs, and they are the best that we ever raised, as good as we ever saw. There are flock headers among them that would please the most exacting.—J. E. WING & BROS., Mechanicsburg, O.

Hampshiredown Rams.

6 pure-bred yearling rams for sale at reasonable prices. Apply to R. D. White, Mg. Royal Orchard, Affton, Va.

20

BREEDING EWES.

With half blood Shropshire Lambs by their side, for sale.—THOS. B. SCOTT, Burkville, Va.

REGISTERED

Angus Calves.

Large Toulouse Geese.

J. P. THOMPSON, Orange, Va

REDS.**THE THOROUGHBREDS.**

The three Reds for sale.

Red Polled Cattle.

Red Duroc Jersey Hogs.

Rhode Island Red Chickens.

The Red Polled Herd is headed by the Royal Blooded Herodotus—weighs over 2,200 pounds and traces his lineage to sturdy Scotland.

The sire of Prince Harriman took first prize of Durocs at St. Louis in 1904.

Rhode Island Red Chickens—remarkable for their rich, red coloring, the cocks being magnificent in plumage. The eggs of this breed are large in size, fine color and good flavor. The chicks are all hardy, pullets mature at an early age.

Now ready for market.

Red Polled Bulls.

Red Duroc Jersey Hogs.

Rhode Island Red Chickens

pairs or
three.
Trio.
Eggs.

Write me for prices.—JOHN H. HATFIELD, Harriman, Tenn.

Poland China Pigs

Some fine ones, young sows bred, young boars and pigs. No better breeding in the United States. My herd boars have been sired by J. H. Sanders, Lookmeover. Perfect I Know, Proud Perfection, Corrector and High Roller, the greatest prize winners of the breed—my sows have been as carefully selected.

RED POLLED CATTLE. Fine good young bulls. Will sell a few cows and heifers. ARROWHEAD STOCK FARM, Charlottesville, Va., SAM'L B. WOODS, Propn.

POLAND CHINAS

With the business hams; large, mel low, easy keepers. We did not have half enough all pigs. Have added to our herd a few choice sows bred to some of the best boars in Ohio. Will be well fed in spring pigs and have something extra good to offer for April and May delivery. A few bred gilts and some young sows boars for sale, satisfaction guaranteed write your wants. M. B. Turkey eggs \$3. per 12. A. GRAHAM & SONS Overtown, Va.

Poland Chinas.

Sunshine and Perfection Blood. Have a fine lot of Early spring pigs now ready for shipment. \$6.00 each, can mate them, no other for breeding. All pigs eligible to registry and first class. Buff Plymouth Rock, S. L. Wyandotte and Brown Leghorn Eggs for hatching \$1 for 15.—B. T. ROBINSON, Lexington, Va.

EXTRA FINE

Poland-Chinas.

Lampighter, Perfection and Sunshine stock. Write for Circular.

C. H. MILLER, R. F. D., 3, Richmond, Va.

to produce best results? Will grain crops make good hay? What is the best method of seeding for hay? Is the modern gasoline engine a good power for the farm? What is the best size gasoline engine to buy? What is a four cycle engine? What does it cost to operate a gasoline engine? Is ensilage the best and cheapest feed for dairy cows? What is summer soiling? What are the correct proportions of lean and fat producing materials in a dairy ration? How much milk and how much butter should a good cow produce? What kind of separator should the cow owner buy? What is skim milk worth as food for stock? How much wheat should an acre produce? Is wheat good in the farm crop rotation? Does any crop leave a poison in the soil? Can the wheat yield be increased by seed selection and breeding?

Every one of these questions and a thousand others of interest and value to every farmer are answered in "Farm Science." It is a splendid volume of 128 pages, profusely and beautifully illustrated and containing eight chapters specially prepared by the highest authorities on the several subjects. "Alalfa Culture in America," by Jos. E. Wing, Expert Agriculturist of Mechanicsburg, O. "Modern Corn Culture," by Prof. P. G. Holden, Iowa Agricultural College Ames, Iowa. "Best Methods in seeding," by Waldo F. Brown, Farm Specialist of Oxford, O. "Increased Fertility," by Prof. Cyril G. Hopkins, Illinois College of Agriculture, Urbana, Ill. "Profitable Hay Making," by Prof. Thomas Shaw, late of Minnesota Experiment Station. St. Anthony Park, Minn. "Power on the Farm," by Prof. Fred R. Crane, Illinois College of Agriculture, Urbana, Ill. "Up-To-Date Dairying," by Prof. Clinton D. Smith, Director of Michigan Experiment Station, Agricultural College, Mich., and "Small Grain Growing," by Willet Hayes, Assistant Secretary of Agriculture, United States, Washington, D. C. Every author is a master in his line and every subject is treated exhaustively in all its ramifications. The whole composes the most valuable and authoritative work ever issued along these lines. The copy before us has so impressed its worth upon us that we urge every farmer reader of our paper to procure a copy at once. A book of such value cannot be secured at any price. However, any reader of this paper will receive a copy by enclosing 3 two-cent stamps and addressing "Farm Science," International Harvester Company of America, Chicago, Ill.

Kindly say to them that you saw this article in our paper.

Elizabeth City Co., Va.,

Mar. 5, '06.

I cannot do without the Southern Planter.

B. F. HUDGINS.

ORCHARD HILL PURE-BRED**POLAND-CHINAS.**

Spring pigs and a yearling Guernsey bull, and two bull calves, also a few White Wyandottes and Buff Orpington cockerels.

F. M. SMITH, Jr.,

R. F. D. No. 4, Charlottesville, Va.

Registered P. China Berkshire
C. Whites. Large strain
All ages mated not akin,
2 week pigs. Bred sows,
Service boars, Guernsey
calves, Scotch Collie pups and poultry. Write
for prices and free circulars.
P. F. HAMILTON, Cochranville, Chester Co. Pa.



BERKSHIRE PIGS.

Some fine pigs for sale at \$5.00 each from registered stock. Pedigrees furnished.—R. W. HAW, Centralia, Va.



ESSEX PIGS and Southdown Sheep

I have some choice Essex Sows, 4-6 mos. old, and pigs for spring delivery, also some choice Southdown Ewe lambs for prompt delivery. L. G. JONES, Tobaccoville N. C.

BERKSHIRES.

Send in your orders for pigs or shoats. We will ship you good individuals, superb in conformation marking and health. We breed for the farmer who wishes to improve his herd or start a new one. If you can do so, come and see our stock.

WALNUT GROVE FARM,

W. J. Craig, Manager, Shawsville, Va.



Salt Pond Herd. DUROC JERSEYS.

PAUL J. 21625, son of Oom Paul, head of herd. Sows by Red Kover, Jumbo, Longfellow and other noted hogs. Choice lot of Pigs at reasonable prices, ready to ship.

B. A. WHITTAKER, HOPESIDE, VA.

BERKSHIRE I offer some exceedingly choice young boars for sale; BOARS. by Imported Danes-

field Tailor, 76490 and out of Biltmore bred sows. It will be hard to find better or cheaper stock

HENRY WARDEN, Fredericksburg, Va.

BERKSHIRES

10 to 12 weeks old pigs delivered end of May; 7 and 4 mos. old Boars; trios, 2 Sows, 1 Boar, not akin; for breeding, see April ad on page 355.

ROBT. HIBBERT,
CHARLOTTESVILLE, VA.

BEST HOG ON EARTH!

CHESTER WHITES at farmers prices; now booking orders for spring delivery.

S. M. WISECARVER, Rustburg, Va.

GROVE FARM

R. F. D. Cockeysville, Md.
First Prize Herd
Guernseys

at Timonium and Hagerstown, Maryland
(only place HERD shown).

BULLS ONLY FOR SALE
OUR BERSHIRE.

were unbeaten at Timonium (Baltimore County), York Pa., and Hagerstown, Maryland, the only places shown in 1905. PIGS OF BOTH SEXES for sale.
C. & F. Telephone and Telegraph, 421
Lutherville, Md.

JAS. McK. MERRYMAN.

REGISTERED**Holstein-Friesian**

Cattle; best butter producing strains; pure-bred JERSEY CATTLE, CHESTER WHITE, BERSHIRE, JERSEY RED HOGS, and all the LEADING BREEDS OF SHEEP, also DUCKS, POULTRY and TURKEYS.

Write for my prices.

W. R. SELLECK, Huntingdon Harbor, L. I.

Swift Creek Stock and Dairy Farm

Has for sale a large number of nice young registered A. J. C. C.

JERSEY BULLS
And HEIFERS.



None better bred in the South. Combining closely the most noted and up-to-date blood in America. Bulls, 4 to 6 months old, \$75. Heifers, same age, \$35. POLAND CHINA PIGS, \$5 each. Send check and get what you want.

T. P. BRASWELL, Prop., Battletown, N. C.

DEVON HERD, HAMPSHIRE DOWNS FLOCK

ESTABLISHED 1864.

ESTABLISHED 1860.

DEVON CATTLE

BULLS and HEIFERS,
Hampshire Down Sheep,
RAMS and EWES.

ROBT. J. FARKER, Orange, Va.

THOROUGHBRED

Berkshire Boars,
Jersey Bull Calves,
Dorset Buck Lambs.

Sire of Calves, FLYING FOX 65456, son of Flying Fox who sold for \$7,500 at the Cooper sale 1902.

All stock in best of condition and guaranteed as represented.

F. T. ENGLISH, Centerville, Md.

ELLERSLIE FARM—

Thoroughbred Horses
AND SHORTHORN CATTLE,
Pure Southdown Sheep
and Berkshire Pigs.

For Sale, R. J. HANCOCK & SON,
CHARLOTTESVILLE, VA.

HALLOCK'S POTATO DIGGER.

Cedar Falls, Ia., Mar. 1, 1906.

Messrs. D. Y. Hallock & Sons:

I have been in the potato business for 12 years; raising from 5 to 10 acres each year. Have used seven different diggers and have found none that will compete with the O. K. I have tried it in wet, weedy and stony ground; also on sod and side hills and it gave good satisfaction. My ground, a heavy black loam with clay sub-soil and two horses will handle it well. It leaves the ground smooth and the potatoes all on top of the ground.

Yours truly,

A. J. CLARK.

THE BEST LINIMENT IN THE MARKET.

Calgary, Canada, July 26, 1905
The Lawrence-Williams Co., Cleveland, O.

The West, as you no doubt know, is a great horse country, and we have a large sale of GOMBAULT'S CAUSTIC BALSAM. We believe you have the best liniment on the market and, although the sale in this country is large, it could be greatly increased by a little advertising.

JAS. FINDLAY.

IN UTAH.

Jingley—"How old did you say your wife is?"

Bingley—"Forty."

Jingley—"How would you like to change her for a couple of twenties?"

—April Lippincott's.

Nottoway Co., Va., Mar. 16, '06.

I would not like to miss a single number of the Southern Planter as I think it is the best farm journal I ever read.

ADAM HARDIE.

ABSORBINE, JR., FOR MANKIND.

La Bolt, S. D., Jan. 31, 1906.

W. F. Young, P. D. F.,

Dear Sir:—I received the bottle of Absorbine, Jr., you sent me, and think it a grand liniment.

Yours very truly,

G. B. SONNEMAN.

Absorbine, Jr., is a mild, pleasant remedy for gout, varicose veins, varicocoele, hydrocoele, strains, bruises,

Campbell Co., Va., Feb. 20, '06.

The Southern Planter is the very best paper of its kind I have ever seen.

C. W. SCOTT.

Princess Anne Co., Va., Feb. 17, '06.

I have none but words of praise for your very valuable, up-to-date publication. It is priceless to me.

SPRINGWOOD SHORT HORNS.

Some fine Red, White and Roan Bull Calves, 4 to 11 months old, of most excellent breeding, at low prices.
POLAND CHINA PIGS, sired by son of 2nd prize aged Boar, St. Louis World's Fair. Correspondence solicited. W. T. THRASHER, Springwood, Va.

WANT ADS.

Rate 2 cents per word. Cash with order. Initials and figures count as one word. 25 cents minimum charge.

CHEAP FARM NEAR DANVILLE, VIRGINIA for sale. \$5,500 will buy a valuable dairy and truck farm, 250 acres, 3 1-2 miles from city. Splendid Country home, 8 room residence, 15 other buildings, large barns, etc., well wooded and watered, near school and church, 20 acres in orchard, priced much below value to wind up estate; also small farm at \$14 per acre. RICHARD COATES, Exer., Danville, Va.

FOR SALE CHEAP, fine large Reg. English Yorkshire Stock Boar, 2 yrs. old—a perfect animal. JOHN MORRISON, East Richmond, Va.

THE SOUTH SIDE STRAWBERRY CRATES and Baskets, Send for Catalogue and prices. South Side Mfg. Co., Petersburg, Va.

FOR SALE, first-class Registered Guernsey Bull Calves from 3 to 12 months old, from the best milking strains, descendants of Fat of Haddon and imported Island Champion. Prices moderate. G. M. WALLACE, Falmouth, Va.

McCORMICK SHREDDER AND CORN Harvester for sale; in use 3 years on 25 acre crop. W. A. CONNELL, Ines, N. C.

THE SOUTH SIDE LETTUCE AND BEAN Baskets, Nos. 25 and 27; send for Catalogue and prices. South Side Mfg. Co., Petersburg, Va.

FOR SALE: Shepherd pups ready for delivery June 15th. WM. F. ANDREWS, Briarfield, Va.

FOR SALE: 2 Berkshire Boars, eligible to registry, weight 150 lbs., price \$10; March pigs, weight 60 lbs, \$5. L. B. JOHNSON, R. F. D. 4, Charlottesville, Va.

FOR SALE to first buyer, 1 share stock of American Hereford Cattle Breeders Association, \$8. regular price, \$10. ROSEMONT FARMS, Berryville, Clarke Co., Va.

A FEW BOAR PIGS out of imported Large White Yorkshire Sow, for sale at \$10 each. W. W. HENRY, Jr., Thoroughfare, Va.

ROSE DALE HERD....**Aberdeen Angus**

Top notch young registered Bulls on specialty. A few heifers to offer with bull not akin. We send out none but good individuals. Correspondence and inspection of herd invited. ROSE DALE STOCK FARMS Jefferson, Va.

Hawkley Farm Berkshires

FROM IMPORTED STOCK. We give the finest breeding and excellent individuals at reasonable prices. You'll get the best selections by writing early.

B. P. Rock and S. C. B. Leghorn Eggs, \$1 per 17.

J. T. OLIVER, Allen's Level, Va.

GALLOWAYS.

All readers of this paper who are interested in this breed of cattle are invited to write me.

N. S. Hopkins, Gloucester, Va.

FOR SALE.

1 Registered JERSEY BULL, 2 years old. 1 No. 2 Sharples Separator. In perfect order. S. C. BROWN, LEIGHON Eggs from choice birds. I will make prices to suit you. RIVER VIEW DIARY FARM, Rice Depot, Va., C. M. Bass, Proprietor.

SOIL INOCULATION.

When the commercial cultures of nitrogen-fixing bacteria suddenly came on the market in the spring of 1905, we were in position to prepare cultures which we felt sure would be equal if not superior to any others made; and in order to check the wild enthusiasm caused by the very extensive and misleading advertisements, we hastily prepared and offered to the farmers of Virginia the inoculating material at a sum sufficient to cover the cost of preparing, packing, and mailing, the packages being put up in three sizes, for one, two, and three acres respectively, with directions for use.

Results Obtained From the Inoculating Material.

All our press bulletins and letters regarding the distribution of the inoculating material made particular mention of the fact that we desired everyone who used it to make a careful test of its efficiency; for, after all, the value of any such product must be determined by its efficiency under various conditions when on the farm. In November, 1905, the following circular letter with questions attached was sent to all farmers who used this material:

Virginia Agricultural Experiment Station.

Blacksburg, Va., Nov. 1, 1905.

Dear Sir,—The Experiment Station desires to obtain all information possible concerning the value of inoculating the seeds of legumes with nitrogen-fixing bacteria. This is of material interest to every farmer in the State, and, as you are one of the many who used the inoculating material sent out from the Station this year, we earnestly request you to give us the results of your experiment by answering the questions enclosed and return to us at your earliest convenience in the stamped envelope enclosed herewith.

Three hundred and forty-four have been returned with questions answered. Of these, we have 234, which indicate that the inoculating material was, without doubt, a success, and that the crop was benefitted by it. Twenty-seven showed that the soil already contained the proper bacteria and that the crop was not materially benefitted by the inoculation, neither by formation of nodules or increase in crop. Sixty-one stated that there was no crop, due to bad seed, bad season, or weeds and grass. From the above we have the following percentages:

	Per Ct.
Benefit derived from inoculation...	82
No benefit from the inoculation....	8
Land already inoculated.....	10

The sixty-one crop failures due to the conditions stated are not contained in this table.

This is a very good showing, and is

ELKTON STOCK FARM. BREEDERS OF PURE BRED HEREFORD CATTLE PERCHERON HORSES BERKSHIRE HOGS.

Stock for sale at all times at reasonable prices
All statements and representations guaranteed,
FOREST DEPOT, - - - VIRGINIA.



ACTOR 26th, 186288

INGLESIDE HEREFORDS

Bred by S. W. Anderson, Blaker Mills, Greenbrier county, W. Va.

A choice lot of BULLS, COWS, and HEIFERS for sale. Also a few POLLED HEREFORD BULLS recorded in the National Polled Hereford Records. Write for catalogue and prices. Farm near Alderson, W. Va., on the C. & O. R. R. Telegraph and Telephone office, Alderson W. Va.

HEREFORD CATTLE.

HIGH CLASS HERD.
Prices Very Reasonable.

EDWARD G. BUTLER, "Annefield Farms,"
BERRYVILLE, - - - VIRGINIA.

FOUR BEAUTIFUL REG.

RED POLLED HEIFERS

for sale, also 2 REGISTERED BULL CALVES.

JERSEY BULL CALF,

Golden Lad Blood on Both Sides.

BERKSHIRES.

Several nice litters; can furnish pigs not akin.

M. B. ROWE & Co., - - Fredericksburg, Virginia.

Don't
Buy a
Vehicle
of any
kind until
you get our
New Vehicle
Catalog

We Ship on 30 Days Trial
We Don't Ask for Any Money with Order

Our
Terms
Are the
Most
Liberal
Ever Made

19
22
41

OUT THIS AD OUT send it to us and we will mail you free the most complete catalog of vehicles and tractors ever printed. The only one of its kind. Don't buy a vehicle or tractor until you get our 100 catalogue and see our astonishingly low prices and the most liberal terms ever made.

MARVIN SMITH CO. CHICAGO, ILL.

somewhat better than that claimed by the Department of Agriculture at Washington; also averages better than the experiments conducted by the different stations of Germany in the year 1903. With these results, we feel that our efforts to secure an inoculating material which would meet the conditions existing on the farm have been successful. We believe that this has been due to the manner in which we proceeded in securing vigorous cultures. This procedure, you will notice, is as follows: We have grown our host plants in coal ashes, or sand, supplying them with no nitrogenous elements, always looking to the bacteria present to supply this. This has given us nodules produced by very strong, vigorous bacteria, which in turn have been grown in a liquid, nitrogen-free medium and again forced to gather nitrogen from the air for their sustenance. Thus we have cultures which have for two periods in their development, one on the plant and the other in the artificial medium, depended on their own resources for nitrogen.

When Inoculation May Be Beneficial.

Since it is no longer questionable that the seeds of legumes can be inoculated with artificial cultures of nitrogen-fixing bacteria and large amounts of nitrogen gathered from the air and converted into forms, not only available for the growing crop but stored in the land for the use of future crops, it would be well for us to note the conditions under which the best results may be obtained.

1. On poor land that has not previously grown legumes.
2. On land that produces poor crops of legumes and where, upon examination, the roots fail to show the presence of nodules.

3. Where the legume to be planted is of a widely different species to the ones previously planted on the land.

4. Where the land has previously produced a lot of legumes, possessing nodules which, instead of being beneficial, acted as parasites. Good results may be obtained from the use of pure cultures when a field which has previously grown good crops of legumes begins to give evidence that, all other conditions being the same, it is not producing the highest yields. The cause may be that the bacteria already in the soil are losing their virulence, and the only way to be certain of this is to try inoculation and note results.

When Inoculation is Unnecessary.—Since the only purpose in adding the bacteria to the soil is to furnish nitrogen to the plants in an available form, usually with root nodules, it is evident that where the organisms are already abundant and the crop is thriving, but little benefit can be expected from an additional inoculation. Neither is inoculation necessary where the soil is already very rich in nitrogen,

MONTVIEW JERSEYS.

We have for sale, at reasonable prices, Bull calves sired by our prize-winning Imported Marett's Flying Fox and also one masculine son of the famous Forfarshire.

MONTVIEW BERKSHIRES.

MANOR FAITHFUL, pronounced by Geo. F. Weston, Superintendent of Biltmore Farms, the BEST BOAR HE COULD FIND IN ENGLAND. Sold for \$615, and weighed 1100 pounds in show condition. We have now pigs by this great boar out of splendidly bred sows. Only a limited number will be sold.

We also have a fine litter from an imported sow by BARON PREMIER 3RD, the boar that was first prize-winner in his class at the St. Louis Exposition.

Montview Farms,

CARTER GLASS, Owner.

C. L. STAHL, Manager,

Box 513, Lynchburg, Va.

BILTMORE FARMS

R. F. D. No. 2, Biltmore, N. C.

JERSEYS.

Send for booklet of young Jersey bulls.—The get of seven different sires. Also send for prices and descriptions of choice young heifers from six to twelve months old.

BERKSHIRES.

Price list of Berkshire Sow Pigs and gilts soon to be issued. Drop us a card and have your name placed on our regular mailing list for BERKSHIRES and JERSEYS.

Write for prices and descriptions of what you want.

Address

BILTMORE FARMS,

R. F. D. No. 2, Biltmore, N. C.

BERKSHIRES

—GROWN AT—

FOREST HOME FARM

are given liberal range with a variety of feeds including 150 gallons skim milk per day and pasturage, hence they are all well developed with strong constitutions, and prolific. Several blood lines to select from. Write for what you want.

FOREST HOME FARM

R. F. D. No. 2.

PURCELLVILLE, VIRGINIA.

PALMETTO FARMS.

Red Polled Cattle. Berkshire Hogs. Angora Goats.

We are offering 2-year-old Red Polled Bulls, of superior beef form, from heavy milking dams. Combine beef with milk, and secure a double profit. Fine individuals, of fancy breeding. Red Polls are hornless. We are pricing them low to make quick sale. Nothing to offer in Berkshires and Angoras before fall.

PALMETTO FARMS, Aiken, S. C.

nor where it is already full of nitrogen-fixing bacteria.

When the inoculation Will Be a Failure.

1. When the directions for preparing the solution are not carefully followed.

2. When the soil is too acid or too alkaline to permit the development of either plants or bacteria.

3. When the soil is deficient in other necessary plant foods, such as potash and phosphorus, as well as nitrogen.

Above all things, it should be remembered that no inoculation will overcome poor results due to bad seed, improperly prepared seed beds, bad cultivation of land, weeds and grass, or adverse climatic conditions. Liming where needed and the addition of phosphatic and potash fertilizers should not be neglected.

We have a large amount of data to show that where inoculation is successful it is of great value to farmers. As concrete examples, Dr. Hopkins, of Illinois, reported that by inoculation 90 pounds of nitrogen per acre was added to the soil; at the market price, the nitrogen gathered in this manner was worth \$13.50 per acre. A German investigator reports that on two occasions the nitrogen stored in the soil by means of inoculation was worth \$18.00 per acre.

Summary.

1. Inoculation can be done successfully and profitably where care is taken in observing the proper methods.

2. A conservative course is recommended. The recent wild enthusiasm, using such a term as "vest pocket fertilizer," "act like magic," etc., is misleading; while any statement that inoculation by artificial cultures is a fraud is equally wrong.

3. No amount of inoculation or anything else will make up for an imperfectly prepared seed bed, poor soil, bad season, and poor cultivation.

4. The results obtained and the cost of preparing do not justify the enormous retail price of \$2.00 per acre charged by commercial concerns last spring.

5. The Experiment Station will continue to supply farmers of the State with the cultures at twenty-five cents per acre. In turn, farmers are requested to give the material a fair trial and report results. Those ordering material are also requested to write name and address plainly, as packages have miscarried and failed of delivery in many instances on account of improper address.

Experiment Station, Blacksburg, Va.

Hanover Co., Va., Mar. 4, '06.

I am very much pleased with the Southern Planter and look with pleasure for its coming.

Dr. H. B. ANDERSON.

A POWER on Every Farm

THERE should be a power of some kind on every farm.

It saves labor, time and money, and increases the earning capacity of the farm.

It will work the raw material of the farm into a finished product.

All up-to-date farmers agree that the modern gasoline engine is the best farm power.

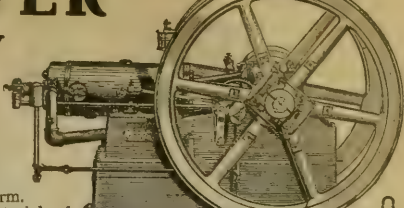
Our I. H. C. gasoline engine is the best gasoline engine.

It is strong, durable, long lived and is of full rated, actual (not estimated) horse power.

It is easy to operate and is easily kept in working order.

It develops the maximum of power with the minimum of fuel.

Specially adapted to cutting dry fodder and ensilage, husking, shredding and shelling corn; threshing



and grinding feed; sawing wood, separating cream, pumping water, etc.

Indeed there is no service required of a power that will not be performed most satisfactorily by this engine.

I. H. C. gasoline engines are made in the following styles and sizes:

Vertical—2, 3 & 5 Horse Power;
Horizontal—(Portable and Stationary), 4, 6, 8, 10, 12 & 15 Horse Power.

If you are not intending to purchase an engine now, you may want one in the future and really ought to know more about them.

Call on our Local Agent, let him show you the engines and supply you with catalog, or write for further information. Do it now.

INTERNATIONAL HARVESTER COMPANY OF AMERICA, CHICAGO, ILL.
(INCORPORATED.)

SUNNY HOME HERD —OF— Aberdeen Angus Cattle.

The two bulls at the head of this herd (Baron Roseboy 57666 and Jester 60071), are as well bred as any in America. Baron Roseboy is a grandson on both sire and dam's side of Heather Lad 2nd, the greatest stock bull of the Angus breed ever in America. Jester is a grandson on sire's side of Equestrian, the greatest bull Scotland has produced in many a day. Jester's dam Jilt 12th, is the best female in the great "Grandview" herd and is a granddaughter of the famous Bushman—by Young, Vaincount—and a great granddaughter of Paris 1166, the bull who turned the eyes of the stock growing world toward the Angus breed at the Paris Exposition. Well sell sons of these two great bulls at prices within the reach of every stockman. Write Farm at Fitzgerald, N. C.

A. L. FRENCH, Prop.

R. F. D. Brydville, Va.



The Delaware Herd of

ROYAL ANGUS CATTLE

is not surpassed either in breeding or individual animals by any herd in the East. At the head of our herd is

PRINCE BARBARA, 86804,

the son of the great \$9,100 Prince Ito. Females of equally choice breeding. Write your wants. Remember, we take personal care of our cattle; keep no high priced help; incur no expense of exhibiting; all of which enables us to offer stock at equitable prices. Send for pamphlet. 15 Bulls from 2 to 16 months old for sale.

MYER & SON, Prop.

Bridgeville, Del.



HEEBNER'S Roller Bearing Level Tread HORSE POWER

and Little Giant Thresher and Cleaner

make the handiest and most economical threshing outfit known. The thresher is made in three sizes, 2, 3 and 4 ft. grinders. It is a simple, easy to handle, light running, strong, durable and effective machine. Will thresh and clean wheat, rye, oats, barley, flax, rice, alfalfa, millets, sorghum, timothy, etc. Capacity 250 to 600 bu.

Results perfect. Will do one man or a whole neighborhood equally well. Can be run by steam, gasoline, or any other power if preferred. Tread power for 2, 3 and 4 horses equal to 2, 4 and 6 horses in lever power. For cutting dry feed, chaffing and shelling, sawing wood, pumping, separating cream, etc. Strongest and lightest running powers on the market. Mounted or unmounted, as ordered. We also make Lister's Plows, Feed and Ensilage Cutters, Wood Saws, Feed Grinders, etc. Send for FREE catalogue. HEEBNER & SONS, No. 26 Broad St., Lancaster, Pa.

VIRGINIA STATE FARMERS' INSTITUTE REPORT.

The report of the second annual session of the Virginia State Farmers' Institute has just been issued. It contains 150 pages, is nicely illustrated and gotten up in an attractive form. It contains many interesting and instructive articles. Among the number worthy of special mention are the following:

Soil Cultivation and Management, by Mess. T. B. Terry, Hudson, Ohio, and Prof. P. O. Vanatter, of the Virginia Experiment Station.

Irish Potato Growing, by Hon. Alva Agee, Editor National Stockman and Farmer, Pittsburg, Pa., and Judge Geo. E. Cassell, of Radford.

Managing a Dairy Farm, by Hon. T. O. Sandy, Burkeville.

Butter Making, by Maj. A. R. Venable, Jr., Farmville.

Trucking, A. Jeffers, Norfolk.

Corn Growing, Percival Hicks, North.

Educating the Farmer, by Prof. Andrew M. Soule.

Some Conditions in American Agriculture, Hon. Alva Agee.

Results of Beef Feeding Experiments, Prof. John R. Fain, Virginia Experiment Station.

Alfalfa Growing, Willis O. Wing, Mechanicsburg, Ohio.

Sheep Husbandry, J. F. Jackson, Editor Southern Planter, Richmond, Va.

Sheep Husbandry in Virginia, J. R. K. Bell, Pulaski, Va.

Commercial Apple Growing in Virginia, Prof. H. L. Price, Virginia Experiment Station.

Small Canneries in Virginia, R. H. Price, Long's Shop.

Our Insect Pests, by Prof. J. L. Phillips, State Entomologist.

Farmers' Institute organizations, by Prof. John Hamilton, Washington, D. C.

A description of the trip of the delegates to the College of Agriculture and Experiment Station, from the Roanoke Times of July 15, 1905. The report also contains a list of new members of which there are nearly 300.

It is needless to say that it is a most interesting and instructive pamphlet and one that should be in the hands of every farmer in the State. We are informed that the finances of the Institute would not permit of the publication of a large edition, but that a limited number of copies are available, and that these will be sent to any farmer in the State enclosing five cents to pay postage to Prof. Andrew M. Soule, Secretary, Blacksburg, Va., as long as the supply lasts.

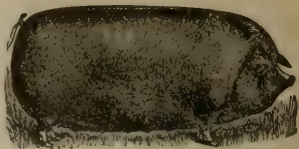
Halifax Co., Va., Mar. 8, '06.

While I have only recently subscribed for the Southern Planter, yet I think it the best farm journal in the South.

THOS. J. BASS.

Special Bargains for June

Poultry and Pigs.



Thirty One and Two year old White Plymouth Rock Hens, 1st class @ \$15.00 dozen.

5 Fancy White Plymouth Rock Cockerels @ \$2.50 each.

20 Buff Leghorn Hens and Pullets @ \$15.00 per dozen.

15 Barred Plymouth Rock Hens and Pullets @ \$15.00 per dozen.

5 Fancy White Wyandotte Cockerels @ \$2.00 each.

10 Pekin Ducks @ \$6.00 trio. One male and two females.

20 White Leghorn Hens and Pullets @ \$15.00 per dozen.

Exhibition Brown Leghorn Cocks and Cockerels, also Pullets and Hens bred in the purple and from Prize Winners. Price a matter of correspondence. Eggs of all of the above breeds; also R. I. Reds, Buff Orpingtons, and many others @ \$1.25 per sitting of 15. In lots of 50 or more @ 7c. each.

Pekin Duck Eggs @ 10c each, in lots of 100 or more \$7.00 per 100.

Poland China, Berkshire and Chester White Pigs, 2 months old, \$8.00 each.

Choice Shoats, both male and female at right prices, Service Boars and Bred Sows, of the choicest breeding. Write for special prices stating your exact wants. Shropshire and Southdown Lambs, Ewes and Service Bucks all eligible to Registry. Write for special prices. Address, JAMES M. HOBBS, No. 1521 Mount Royal Avenue, Baltimore, Md.

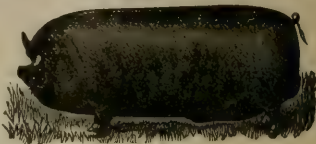
Fancy Berkshire Pigs

from directly imported sows and boars, practically imported blood for you at one-third usual price for such breeding; half imported and half American breeding at pocket-change prices—just a little money order no bank account needed for these. Extra fine open and bred gilts

PEKIN DUCKS and EGGS for sale. S. C. Brown Leghorn

eggs cheap. Barred Plymouth Rock eggs cheap.

pure—all of them. Thomas S. White,



Sir John Bull.

Eastern Stock and Poultry Farm,

Lexington, Va.

The Grove Stock Farm



N. & W. and So Ry.

Holstein Friesian Cattle.

Berkshire Hogs.

Barred Plymouth Rock Cockerels.

GOOD STOCK AT REASONABLE PRICES.

I have recently added to my Berkshire Herd the Imported Boar, GLENBURN CATCH, 84794. You are sure to want some of his get.

T. O. SANDY, Prop. Burkeville, Va.

IF IT'S MADE IN SAGINAW

IT'S MADE RIGHT We want every farmer to send for our wagon book. It suggests to him a way to do a great part of his work on the farm much easier, much quicker and much better. It was shown that the utility of breaking his back loading heavy loads on a high wagon. It will tell him how he can make it easier for his team and yet do better work. It tells about the

FARMERS HANDY WAGON



the low-down, wide-tire, short turn, roomy and durable wagon that's made in Saginaw. A wagon that his dealer can guarantee for five years. A wagon that is honest from tip of the tongue to the rear wheel. A wagon that has held in increased numbers. It's a wagon suitable for any road and any load. Goes over soft, marshy ground without cutting. A wagon you find handy everywhere. Ask your dealer for catalog or send to us. It's free.

Farmers Handy Wagon Co., Saginaw, Mich. Branches, Kansas City and Des Moines.

Makers of Handy Hay and Stock Racks and Handy All-Steel Frame Silos. Catalog free.

WOOD OR STEEL WHEELS

MORVEN PARK.

The Property of WESTMORELAND DAVIS, Esq.

Reg. Dorset Horn Sheep.

Flock headed by Imported Ram, MORVEN'S BEST No. 4132 (C. D. C.), 1st. Prize at English Royal 1904.

We are offering for June delivery, fall born rams weighing, without forcing, at less than six months of age, from 110 to 130 lbs., and averaging 120 lbs. Fit to head any flock.

Large White Yorkshires.

Registered Pigs for sale. Herd headed by Imported boar HOLYWELL HUDDERSFIELD No. 4850, A. Y. C., 2nd prize at Yorkshire (England) Show, 1904. Only time shown.

All pigs either bred on the place and descendants of, or directly imported from the prize winning herds of England. These pigs are prolific, hardy, and they are economical feeders. They are the bacon breed of England and the coming breed of America.

REG. GUERNSEY CATTLE.

TUBERCULIN TESTED.

Herd headed by bull, IMPORTED TOP NOTCH No. 9023 A. G. C. C. son of Imported Beda. Advanced Register No. 136, official yearly butter record 640 lbs. of butter; assisted by MAINSTAYS GLENWOOD BOY No. 7607 A. G. C. C., son of Jewel of Haddon, Advanced Register No. 92, official yearly record 463 lbs. of butter.

We are offering a bull by Imported Top Notch out of Imported Claremont Ruth IV, Advanced Register No. 130, official yearly record 474 lbs. butter, average test 5.6 per cent. butter fat. Also bull by Imported Top Notch out of Princess Dorothy who has just entered the advanced Registry. This bull on dam's side belongs to the Honoria family and is closely related to Guernsey Champion, 1st. at the St. Louis Exposition. Also other bulls from approved deep milking dams.

ALL STOCK IN FINE CONDITION.

Flocks and herds may be viewed by appointment.

Address

**LIVE STOCK DEPARTMENT, MORVEN PARK,
LEESBURG, LOUDOUN CO., VA.**

ENQUIRERS' COLUMN.

GRASS FOR NAME.

I enclose a sample of grass which grew on the banks of the railway here (Witt, Va.). Will you kindly name it? I showed it to two or three friends who could not name it, but pronounced it a weed.

D. K. WITT.

Pittsylvania Co., Va.

The plant sent is white vetch. It is a weed, but a valuable one in that it belongs to the leguminosae family and is therefore a gatherer of nitrogen from the atmosphere and an improver of the land on which it grows. It is close akin to the hairy or sand vetch and also to the English vetch.—Ed.

COW PEAS—HOG BOOK—BREED OF SHEEP.

I have about twenty acres of land in rye of very heavy growth, I wish to harvest this rye, then cut the land up and sow in cow peas, for hay, what variety would you advise, and how much prepared lime to the acre? We raised fifty bushels of corn to the acre on this land last year. What book or publication gives the most information on the Berkshire hog, and where could I obtain same? What breed of sheep is best adapted to this section, Fairfax county.

J. HARRISON YATES.

The New Era, Black or Clay peas usually make the best hay crops, though we have good reports both of the Whippoorwill and Red Ripper. Some large growers prefer to sow a mixture of three or four varieties saying they get the best results from this course. We would not apply lime before sowing the peas, but would apply 500 to 1,000 lbs. of raw phosphate rock or 200 or 300 lbs. of acid phosphate per acre. After the peas are harvested we would plow down the stubble and apply from 20 to 25 bushels of lime (the freshly burnt lime from the kiln, not the prepared lime) per acre and work in and then sow the following crop which will we presume be either a winter cover crop or wheat or oats.

We do not know any book especially on the Berkshire hog. The report of the Berkshire Registry Society (Frank S. Springer, secretary, 510 Monroe St., Springfield, Ill.) gives the best information on the breed. Swine Husbandry by F. D. Coburn, price \$1.50 treats of all the breeds. We can supply this.

We think Shropshires, Oxford or Hampshires would do well in your country. We prefer the Shropshires unless you want to go into winter lamb breeding when the Dorset would be the breed for your purpose.—Ed.



Scalp Diseases

Scaly eruptions, scald head, milk crust, and all forms of eczema of head or face, yield quickly to the magical influence of Heiskell's Ointment. This ointment allays itching and burning sensations, cools the skin, *heals* the irritated surfaces.

HEISKELL'S OINTMENT

has half a century of cures back of it. It has been *proven* in the most obstinate cases. Used with HEISKELL'S MEDICINAL SOAP its healing power is actually astounding. HEISKELL'S BLOOD AND LIVER PILLS should be taken to cleanse the liver and make the blood pure. Ointment, 50c, Soap 25c, Pills 50c.

Sold by all druggists or sent by mail.

JOHNSTON, HOLLOWAY & CO., 531 Commerce St., Philadelphia, Pa.

Large Yorkshires

The Tidewater Railway is taking a portion of our best farming land and we must reduce our breeding operations, and have decided to offer a portion of our

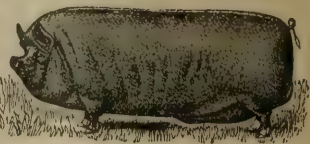
Imported Boars and Sows,

besides a number of weanling pigs. This presents a rare opportunity to secure great foundation animals of this great breed. PRICES LOW. Address

BOWMONT FARMS, Salem, Va.

Large English Berkshires

Extra choice March and April litters and more to follow, at low figures. Biltmore and other noted blood. Headed by 2 Royal Boars. Book orders now and be in time. C. S. Townley, The Hogman, Red Hill, Va.



BERKSHIRE HOGS.

BEST ENGLISH AND AMERICAN STRAINS.
YOUNG STOCK AT REASONABLE PRICES.

EDWARD G. BUTLER, "Annefield Farms,"
BERRYVILLE, - - - VIRGINIA.

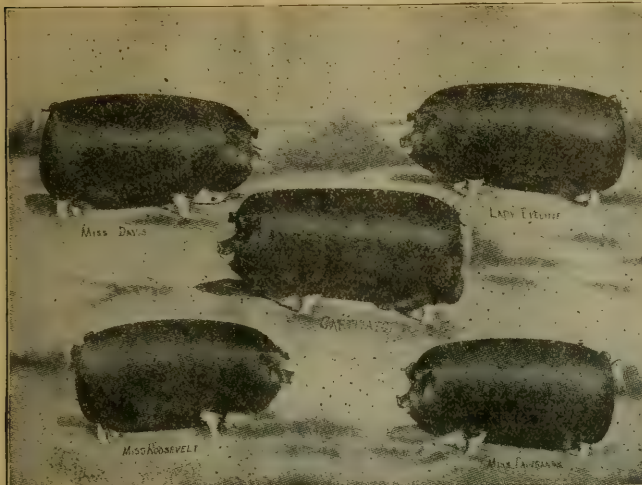
GLENBURN BERKSHIRES

Pigs out of splendid IMPORTED and American sows, and by grand IMPORTED boars, including LOYAL HUNTER, the largest and best boar ever imported into this country. These represent the best herds and greatest winners of England and America. Have recently added to our herd, two splendid daughters of LORD PREMIER in pig by PREMIER LONGFELLOW, grand champion of the World's Fair. Also two superb COMBINATION Sows in pig by the great MASTERPIECE, the highest priced boar of the breed. A. J. C. C. Jersey cows, bulls and heifers for sale. Mention this paper.

J. D. KIRK, Roanoke, Va.

BERKSHIRES

of the most fashionable English strain, for sale by
COL. HENRY HOLLYDAY, EASTON, Md.
Prices reasonable Correspondence solicited



"International Stock Food" is prepared from pure, medicinal Roots, Herbs, Seeds and Barks and is fed in small amounts as an addition to the regular grain food. It Purifies the Blood, Cures and Prevents Disease, Tones up and Permanently Strengthens the Entire System and greatly Aids Digestion and Assimilation so that each animal obtains more nutrition from all grain eaten. Sold by over One Hundred Thousand Dealers on a "Spot Cash Guarantee" to give you paying results or your money promptly refunded.

WE HAVE THOUSANDS OF SIMILAR UNSOLICITED TESTIMONIALS ON FILE IN OUR OFFICE. TEST IT FOR YOUR PIGS, SHOATS, HOGS OR OTHER STOCK ENTIRELY AT OUR RISK. GUARANTEED TO MAKE YOU EXTRA MONEY.

DAN PATCH 1:55 1/4 IN 6 BRILLIANT COLORS

WITH POSTAGE PREPAID MAILED FREE

We Have A Beautiful, Six Color Lithograph of Our World Champion Stallion Dan Patch 1:55 1/4. It Was Made From Photograph And Shows Dan Hitched To Sulky And Pacing His Fastest Clip. It Also Gives All Of His World Records. This Is A Splendid Horse Picture For Framing. It Is The Most Life Like Picture Ever Taken And Shows Dan Flying Through The Air With Every Foot Off Of The Ground. We Will Mail You One Copy Free, Postage Prepaid, If You Write Us And State How Much Live Stock You Own And Name This Paper. Address INTERNATIONAL STOCK FOOD CO., Minneapolis, Minnesota, U. S. A.

LAME HORSE.

I have a mare that has an enlarged ankle; is very hard like bone; is a little lame. If she has been strained or hurt any way I don't know it. Please let me know in your paper what to do to reduce the enlargement.

A SUBSCRIBER.

Lee Co., Va.

Blister the joint with Spanish fly blister. If this fails to reduce the enlargement try firing with a hot iron.—Ed.

PLUMS INJURED.

Enclosed find two small plums, with spots on them, will you kindly state, in next issue of Southern Planter, what this is, the cause, and give remedy, and oblige,

M. M. STODDARD.

Charles City Co., Va..

The plums have been bitten by the Curculio bug. This bug (a small beetle) cuts the small hole you notice

Where to Sell Your WOOL

We are the Leading Dealers in the Wool Trade in Virginia.

HIGHEST MARKET PRICE PAID, and no Commission charged, only freight charges deducted. SACKS FURNISHED FREE. Checks remitted promptly for Wallerstein when ready to sell.

WALLERSTEIN PRODUCE CO., 19 and 21 S. 13th St., Richmond, Va.

References: American National Bank and Richmond merchants generally.

Berkshire Bargains

3 gilts and 1 boar which were kept for the show ring this fall; farrowed Aug. '06; perfect beauties; price, \$25 each; also 5 pigs, 3 mos. old, intended for same purpose, at \$10 each; am selling to make room for spring litter. BRIDLE CREEK STOCK FARM, W. B. Fleming, Prop., Warrenton, N. C.



OKLAHOMA PUBLIC LANDS.

Half million acres most fertile land in Oklahoma, located near Lawton, opened to Settlement this Summer under U. S. Homestead Laws. Get a home in Okla. cheap. Adjoining land worth \$25.00 an acre. Maps and full information regarding opening for 50 cents.—A. T. CATRON & CO., Lawton, Okla.

STOCK SHEEP.

My regular consignments of BREEDING EWES will commence arriving about June 20th. From that time till, fall I can supply parties desiring same any number of good ewes.

I make a specialty of filling car lot orders. I also make a specialty of supplying farmers from ten head up, on time if they desire.

Let me know what you want and how many and I will quote prices and terms.

Pens and Office:
Union Stock Yard,
Office Phone 993.
Residence Phone 5059.

ROBERT G. BRAUER.
P. O. Box 201, Richmond, Va.
Commission Salesman of
Cattle, Hogs, Sheep, Lambs and Calves.

and therein lays its egg. This egg hatches into a slug which works its way into the fruit and causes it to drop off. The slug then works its way into the ground and there passes the next stage of its existence, to emerge next year as a beetle to continue its destructive work. The only remedy is to shake the bug out of the trees by jarring them with a smart blow with a mallet, catching the bugs on a sheet spread under the tree and then destroy them. All dropped fruit should be at once destroyed to prevent the slugs passing into the ground and thus lessen the brood of beetles next year.—Ed.

PREPARING FOR ALFALFA.

Will you kindly tell me what is the best time to apply lime and fertilizer on land for alfalfa? Part of my land is in Irish potatoes, which was heavily manured and fertilized. The balance has been top-dressed with manure and plowed under (the manure used is barnyard manure).
LINDSAY McMINN.

New Kent Co., Va.

Apply the lime as soon as the Irish potato crop has been dug and work in lightly with the harrow. Apply lime on the land on which the manure has been plowed down this month and work in lightly with the harrow. In July apply the fertilizer you intend to use (bone meal is best) and work in and then in August apply the inoculated soil or bacteria and sow the alfalfa seed.—Ed.

SAND VETCH—WEEDS.

I sowed last fall a patch of sand vetch with wheat, from which I wish to get seed vetch. Please advise me when it should be cut and how it may be best handled to save the seed.

Can you tell me how to kill such weeds as burdock, poke, etc., in places that cannot be cultivated? I have heard that our U. S. Department of Agriculture recommends some application to the roots, perhaps a powerful acid. If you can, please advise

EVERGREEN FARMS

Fancy Bred Stock at Reasonable Prices.

REGISTERED JERSEY CATTLE.

REGISTERED BERKSHIRE BOARS ready for service.

S. C. B. LUGHORN EGGS from choice birds. 75c per 15.

W. B. GATES, Prop.

Rice Dep. Prince Edward County, Virginia

DUROC-JERSEYS

are at the top and there to stay. Write us and we will give you some hog facts that will convince you.

We have the blood of ORION, OHIO CHIEF (recently sold for \$2,000.00), SENSATION, SURE WINNER, TOPNOTCHER, PROTECTION, KANT-BE-BEAT, LONGFELLOW, WASHINGTON KING, GO-FORWARD, FAYETTE CHIEF, and HIGH CHIEF. Besides a string of others of the leading Western winning strains, THE VERY CREAM OF DUROC-JERSEY BREEDING. Our prices are low and the quality is high. We can save you money in the purchase price and in expressage. Write at once and we will give you some DUROC FACTS.

LESLIE D. KLINE, Vaucuse, Va.

POLAND CHINA

—: AND —:

TAMWORTH PIGS

entitled to registration; also bred Sows at reasonable prices.

APPLY TO

J. C. GRAVES, Barboursville, Orange Co., Va.

SPRAY NOW

It will soon be too late.

100 Per Cent. Dividend.

ON THE INVESTMENT IN A

DEMING SPRAY PUMP

Can be realized by any
FRUIT GROWER.

Best Iron.
Best Brass.
Best Construction.
Simple.
Durable.

Sydnor Pump & Well Co., Inc.

Dept. B.

Richmond, Virginia.





Was there ever a more magnificent array
of famous producing stallions and mares in
one pedigree?

SUPREMACY 13323
Record 2.29.
Trial 2.17.
Blood brother to
Maj. Delmar...1.59 1/4
(champion gelding)
2.07 high wheel
sulky
World's record
2.01 1/4 without
wind shield
Grandsons Election-
eer 128 have sired:
Tommy Britton 2.06 1/4
Boralma2.07
Charlie Herr...2.07
Annie Lee, p...2.07 1/4
Carmine, p...2.07 1/4
B. Fitzsimmons,
p...2.07 1/4
Pan Michael, p...2.07 1/4
Alpha W., p...2.08
Silver Chimes,
p...2.08 1/4
Jasper Ayers...2.09
Col. Loomis, p...2.09 1/4
Rowellan2.09 1/4
Promise2.10
etc., etc.

BELL BOY 5350
(Record 2.19 1/4)
sire of
Princess Belle...2.17 1/4
and 15 others in
2.30, grandsire of
Tommy Britton 2.06 1/4
Full brother to
Chimes2.30 1/4
sire of
The Abbott...2.03 1/4
62 others in 2.30
Bow Bells...2.19 1/4
sire of
Billy Andrews,
p...2.06 1/4
24 others in 2.30
Belsire 2.18 sire of
Furl, p...2.15 1/4
St. Bel 2.24, sire of
Lynne Belle...2.10 1/4
&c.

SUSAN
dam of
Supremacy (5) 2.29
Full sister to
Allen Lowe, p...2.12
Alcamedia, p...2.19 1/4
Alcamedia (1) 2.30
half sister to
Auctioneer the sire
of 3 in 2.30 or better
Almaton the sire of 2
in 2.30 or better.
De Barry2.19
&c.

ELECTIONEER 25
sire of
Arion, 4.....2.07 1/4
Sunol2.08 1/4
Palo Alto.....2.08 1/4
16 others, Dams of
Klatawah, p. 3.2.05 1/4
Dolly Dillon...2.07
Crafty, p.....2.09 1/4
94 others in 2.30

BEAUTIFUL BELLS
Record 2.29 1/4
dam of
Belleflower ...2.12 1/4
Bow Bells.....2.19 1/4
Bell Boy.....2.19 1/4
Klatawah Rose...2.19 1/4
Palo Alto Belle...2.25 1/4
6 others in 2.30
ALCANTARA 729
Record 2.23, sire of
Sir Alcantara,
p...2.04 1/4
Moth Miller, p...2.04 1/4
144 others, Dams of
Heir-at-Law, p...2.05 1/4
Charley Hoyt, p...2.06 1/4
55 others in 2.30

SUSIE
dam of
Allen Lowe, p...2.12
De Barry.....2.19 1/4
Alcamedia, p...2.19 1/4
also 3 producers

HAMBLETONIAN 10
sire of
Dexter2.17 1/4
Nettle2.18
38 others in 2.30
GREEN MT. MAID
dam of
Elaine2.20
Prospero2.20
7 others in 2.30
THE MOORE 570
sire of
Sultan2.24
Del Sur2.24
4 others in 2.30
MINNEHAHA
dam of
Baron Rose...2.20 1/4
Beautiful Bells...2.29 1/4
6 others in 2.30
GEO. WILKES 519
(2.22) sire of
Harry Wilkes...2.13 1/4
Brignoll Wilkes...2.14 1/4
82 others in 2.30
ALMA MATER
dam of
Allandorf (sire) 2.19 1/4
Alycone (sire) 2.27
7 others in 2.30
HAPPY MEDIUM 400
sire of dams of
Sister Alice...2.10 1/4
Stam B.....2.11 1/4
100 others in 2.30
COUNTY HOUSE
MARE
dam of
Nettle2.18
and grandam of
6 standard performers

ABDALLAH 1 by Mambrino sire
of dam of Goldsmith Maid 2.14
CHARLES KENT MARE grandam
of Bashaw 50, sire of 17 in 2.30

HARRY CLAY 45, Record 2.29, Sire
of dam of Harrietta, 2.09 1/4, etc.
SHANGHAI MARY grandam of 9
standard performers

CLAY PILOT 93 by C. M. Clay, 20
Sire of 3 in 2.30 or better
BELLE OF WABASH
dam of The Moore, sire as noted

STEVEN'S BALL CHIEF
sire of the great mare Minnehaha
NETTIE CLAY by C. M. Clay 23
grandam of 8 in 2.30 or better

HAMBLETONIAN 10 sire of
grandam of Kremlin in 2.07 1/4
DOLLY SPANKER
dam of George Wilkes 2.22, etc.

MAMBRINO PATCHEN 58 sire of
dam of Ralph Wilkes 2.08 1/4, etc.
ESTABELLA by Imp. Australian
dam of Alma Mater, dam of 8 in 2.30.

HAMBLETONIAN 10
sire of Dexter 2.17 1/4, 39 others, etc.
PRINCESS, Record 2.30
dam of sire Nancy Hanks 2.04, etc.

AMERICAN STAR 14 sire of
dam of Guy 2.09 1/4, and 42 others
GRANDAM NETTIE 2.13
grandam of 3 producing dams.

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Choice Jersey and Polled Angus Cattle. Best Berkshire, Poland China and Jersey Red Hogs

LEWISIANA FARM, Fredericksburg, Va.

me what to use; and when and how
to apply it.

ATWELL SOMERVILLE.

Let the vetch stand until the seed
is nearly ripe and then cut and cure
as hay, handling as little as possible
so as not to shatter the seed. Store
in the barn and let it pass through a
sweat and then the seed can be
knocked out with an old-time flail
or with sticks and be shaken out of
the straw with forks. If run
through a wheat separator the same
end will be attained. By running
the mixed seed through a wheat fan
the vetch seed can be separated
from the wheat.

We do not remember to have seen
any advice from the Department of
Agriculture as to how to kill weeds
in land that cannot be cultivated.
On a small scale they can be killed

"Paints that stay Painted." DO YOU USE PAINT?

Most of the world does. There are good and bad in
PAINTS. But unless you are thoroughly acquainted with
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your purchase will be satisfactory? Write for PAINT
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JOHN W. ATKINSON & CO.,
Richmond, Va.

by dropping sulphuric acid on the crown of each plant, but this is impracticable with a large area. There are some weeds like wild-mustard which can be destroyed by spraying with copper solution (Bordeaux).—Ed.

BUGS INJURING PINE TREES—RAW PHOSPHATE ROCK.

Can you give us any information on the "bug" that kills the pine trees? I can buy 16 per cent. undissolved acid phosphate at a little more than half what I pay for the dissolved 14 per cent. goods. Would you recommend to buy the above for alfalfa, peas, etc., and use more of it.

HENRY WEBSTER.

Hanover Co., Va.

Write the Forestry Bureau, Department of Agriculture, Washington, D. C. They have published a bulletin on the injury done to pine trees by the bug. Ask for this.

Yes, by all means buy the raw phosphate rock and use it at the rate of from 500 to 1,000 lbs. to the acre and then sow cow peas on the land and turn them down and by the decomposition of the pea crop the phosphoric acid in the raw rock will be made available for the following crops.—Ed.

SILO CORN FOR ENSILAGE.

Please tell me all about a silo and the growth and saving of the crop to fill it.

T. G. POOL.

Halifax Co., Va.

In this issue you will find advice as to the growing of the crop to fill the silo. In next month's issue we expect to give full information as to the building of the silo.—Ed.

SERVICE OF SOW.

Please inform us in the June number of the Planter how many days after farrowing can a sow be put to a male. Is it possible to raise three litters of pigs from a sow in one year.

BEGINNER.

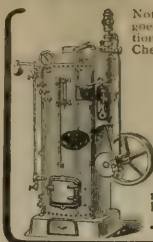
Dinwiddie Co., Va.

A sow will usually take the boar within the first week after farrowing and if this done it would be possible to raise three litters of pigs practically within the year, but such a course would be very unwise, both in the interest of the sow and the pigs. Two litters a year is as many as any sow ought to breed and these can and ought to be had.—Ed.

BITTER MILK.

We have several times had enquires as to how to correct the trouble of cows giving bitter milk. A subscriber who had a cow which gave milk which was useless on this ac-

Power That Counts.

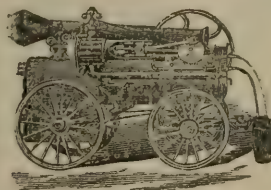
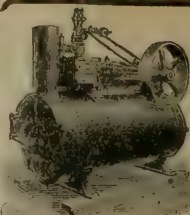


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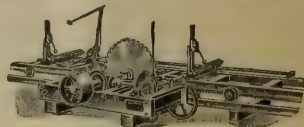
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Dump Wagons,

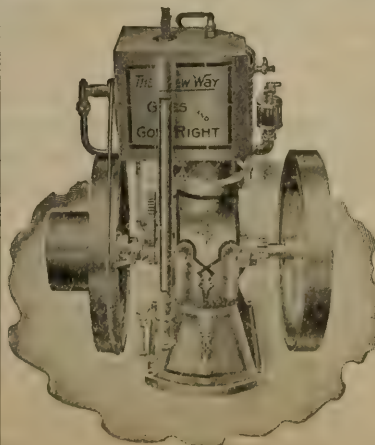
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LLOYD R. PEERY, Eastern Sales Agent.

STEPHENS CITY, VIRGINIA.

count for 18 months, tells us that he got over the difficulty by injecting into the udder a solution of boracic acid 1-2 an ounce to a gallon of water. One injection cured the trouble. He used the same instrument used to inject air into the udder in cases of milk fever.—Ed.

MAKING A PASTURE.

I have been a subscriber to your paper for several years, and value it very highly. I have a right large garden and you have given me a great deal of help. In the rear of my house I have a lot 50x250 feet. It is an old sod and not much good; has a great many onions in it—often can't let my cow graze it on that account. I would like to get it into a good pasture. Would you be so kind as to give me some information on the subject.

SUBSCRIBER.

Pittsylvania Co., Va.

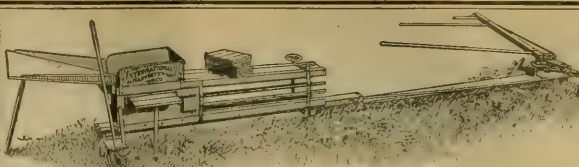
The best thing to do with the plot of land is to plow it up at once, work fine and sow in cow peas at the rate of 11-2 bushels to the acre. Apply 100 lbs. of acid phosphate before sowing the peas, working this into the land. Cut the peas for hay in July or August and immediately plow the stubble down and sow a mixture of crimson clover, say 7 lbs. and half a bushel of wheat, oats, and rye mixed. This will grow during the fall and winter, and then in the spring, say April, plow this down and sow in cow peas again. Applying the same quantity of acid phosphate to secure a heavy growth and thus smother out the onions. It may take two or three years or even more of this system to get rid of the onions. Nothing but smothering them will get rid of them and until they are beaten it is no use to seed in grass as they will come again and render the pasture worthless. After they are eradicated by this smothering series of crops then make the land rich with stable manure and bone meal and sow a mixture of orchard grass, tall meadow oat grass, herds grass and meadow fescue, say a bushel of seed for the lot, in August.—Ed.

COW PEAS.

Will you please state in your paper what is the best way to harvest cow peas. I intend to sow "New Era." What proportion ought I to save?
C. J. HILLYER.

Spottsylvania Co. Va.

If you want the peas for hay cut when the first pods are turning yellow and save as you would clover hay. We have published many different ways of harvesting this crop, stacking it up around poles set in the ground when green, drying it on a scaffold built in the field of fence



Do Your Own Hay Baling

YOU can't afford to hire it done when you'll have so much time of your own after fall work is done.

With this I. H. C. one horse full circle press you and a man and a boy can easily bale 13 tons of hay a day.

There are presses that bale faster. We make a two horse press ourselves, if you want it. But baling 13 tons of your own hay each day is making good money when you would not be doing anything else.

It's a press that's strong enough to stand the racket. You know there's lots of power required in hay baling. The I. H. C. Press has the strength.

It is made principally of steel and iron. It's bale chamber is angle steel with hard steel corners.

There is a large, convenient feed table and a large feed opening. And you will get no more shapely, compact bales from any press, no matter what its cost.

One of the greatest differences between

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the I. H. C. press and ordinary horse presses is the way the power is applied. Its plunger is pulled, not pushed. That's the practical, sensible way.

And it is so arranged that as the pressure on the bale becomes greater the draft on the horse grows lighter.

The I. H. C. press works equally well in timothy, clover, alfalfa or straw.

The I. H. C. Pull-Power Presses are not experiments. Both the one-horse and the two-horse have been operated in every locality where hay is grown. The one-horse press has 14 by 18 inch bale chamber. The two-horse makes three sizes of bales, 14 by 16, 16 by 15 and 17 by 22.

We have prepared a little book which describes fully this one-horse and our two-horse pull-power presses.

If you raise hay or are interested in baling you need this book. Write us for it or call on nearest International Agent.

THE GREEDY ELI

bales of Alfalfa, Peavines, Johnson Grass, etc. Everything requiring baling. It's the and its power gets stronger as the bale becomes denser. Large feed opening makes it everywhere the favorite. Bell Signal, 4-Side Tension Grip. 40 different sizes and styles. Call and see it or write for illustrated catalogue.

doesn't choke when big charges enter its large feed opening. Folds perfectly and makes solid, compact bales.

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rails, but have in our experience never found any difficulty in saving the crop when handled as we would a heavy clover crop. One large grower wrote in the Planter a year or two ago that he never failed to save the hay by letting it lay as cut with the machine until well wilted, and then raked it up with a hay rake, but instead of dropping each rakeful in a row he dropped each rakeful just a little ahead of the last one dropped, thus making the row of rakefuls run diagonally across the field. In his way each rakeful was kept to itself and after being allowed to cure still further, was then made into a small cock and left to cure out. If the crop is wanted for the seed, let the greater part of the pods ripen before cutting and then rake into windrow and handle as little as possible so as not to shake out the peas. When dry enough to store put away in the barn and let lay until it has passed through a sweat and then the peas can be threshed out with a wheat-threshing machine run slowly, or if this be not available the peas can be beaten out easily with sticks or an old-time flail. The corn husker and shredder will also get them out very well. In this way you ought to save practically all the seed.—Ed.

PLANT FOR NAME.

I enclose a sample of species of clover which grows luxuriantly in the fence corners of my garden. It appears to me to resemble alfalfa, that is as far as I can judge from cuts of the latter, having never seen it growing. Kindly inform me whether I am correct, and if so, would not this old garden soil be suitable for inoculation purposes.

JACK CUSSONS.

Louisia Co., Va.

The plant sent is Bokhara clover (Mellottus Alba). It is closely related to alfalfa and the soil in which it grows can be successfully used to inoculate land with bacteria for the growth of alfalfa. The bacteria

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A light, simple, practical gasoline engine outfit that sells at a reasonable price. Experienced fruit growers pronounce it by all odds the best power sprayer made. Entirely self-contained, ready for attaching hose, and easily mounted on wagon bed or tank wagon. Just the thing for the large operations of farmer, orchardist or park superintendent.

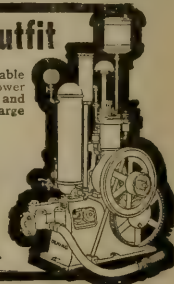
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I make a specialty of Virginia and North Carolina real estate and can sell more than any other man in the North. I will prove this to your satisfaction by selling yours. If you want to sell, write me and

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Made in three sizes—6, 8 and 10 qts. with handles and covers. Send for catalogue and prices.

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October 8-13, 1906.

At The New Fair Grounds.

THE VIRGINIA STATE FAIR ASSOCIATION takes pleasure in announcing to the farmers and live-stockmen of the State that arrangements have been and are now being made to hold, what will probably be the most extensive STRICTLY AGRICULTURAL Fair ever held in the South.

EXTENSIVE GROUNDS are being laid out. Commodious buildings, stables and stalls are being erected and everything consistent, for the pleasure and comfort of both exhibitors and the public, will be provided.

MOST LIBERAL PREMIUMS will be offered for practically everything raised on the farm, both as a collective exhibit and as single specimens. Farmers are, therefore, urged to set aside right now, some crop, animal or fowl, and give it especial attention with a view to exhibiting it. The prize you may win will be well worth your trouble.

PURE-BRED LIVE STOCK will be one of the strongest features of the Fair. Special Purses and Premiums will be set aside for VIRGINIA BRED Stock as well as liberal awards in the free-for-all classes. Many prominent Virginia Breeders as well as some of the leading breeders of the Middle West have already entered their flocks and herds.

DRAFT HORSES will be another strong feature of the Fair. No less attractive will be the exhibit of the other classes and breeds. Speed Trials will have a good place on the programme. Mules and Jacks will be given liberal consideration.

AGRICULTURAL IMPLEMENTS and Machinery, Dairy Appliances, Seeds, Nursery Stock, Fertilizers, etc., all have been amply provided for.

While there will be much to interest and amuse you, our main idea is to educate and instruct. With this idea in view, we most earnestly invite your cordial co-operation.

Permanent offices, fuller information, etc., will be announced in the July issue of this paper.

Send in your name now to be listed for a Catalogue.

**THE VIRGINIA STATE FAIR,
Richmond, Va.**

found in the nodules on both plants is of the same species.—Ed.

ALFALFA.

Last September I planted an acre of good hillside land with alfalfa. It was innoculated with culture from Blacksburg. It came up well—also stood the winter nicely, but the growth since April 1st has been rather disappointing. In some places it is two feet high, in others three inches, and this in such a "blotchy" way as to indicate that richness or poorness of the soil is not the cause. The shorter plants are a much lighter green, with the lower leaves turning yellow. There is just an occasional blossom at this date. Clay soil, well limed before plowing, and a top-dressing of well-rotted manure in December. The land raised a good crop of pea hay last summer. It was deeply plowed, but not subsoiled.

What is the trouble and what treatment would you suggest.

Farther: I find two distinct varieties of alfalfa in the lot. The tallest and greenest seems to be (too few blossoms to tell certainly) one variety and the short, yellowish, another. The tall variety has a purple blossom; the short, a yellow one. Are there two (or more) varieties? If so would not the difference in growth indicate that the purple variety was the best for this soil? I enclose samples of the two. There is a decided difference in the shape of the leaves, but both have the clover shape and odor of blossom. The difference in size of these plants is so great that I am sure one would produce double the other.

F. A.

Botetourt Co., Va.

The cause of your trouble is that you have sowed a badly adulterated lot of alfalfa seed. The tall growing variety with the purple flower is true alfalfa. The small plants with the yellow blossom are trefoil (*Medicago lupulina*). This is a worthless weed, although of the same genus as alfalfa. Large quantities of trefoil seed are imported in to this country and used by a few unscrupulous seedmen to adulterate alfalfa seed and clover seed. Your only course to secure a good stand will be to plow up the whole field and reseed with pure alfalfa seed. Before you purchase the seed insist upon a sample being furnished and send it to the Department of Agriculture at Washington for examination, and buy only if found pure.—Ed.

ALFALFA SEEDING—DRAINING LAND.

I have an acre of sod land that I want to put in alfalfa next spring. I will plow in June and put in cow peas. Turn them under in the fall

—THE NEW—

AMERICAN SAW MILL

VARIABLE FRICTION FEED

Ratchet Set Works, Quick Replacer, Duplex
Steel Dogs, Strong,
ACCURATE AND RELIABLE.

Best Material and Work-
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Easy to Handle, Won't
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Yours truly, Bradley C. Newell."

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Contains no tar or paper; will not melt, or tear. Acid fumes will not injure it.

Outlasts metal or shingles. Any handy man can apply it.

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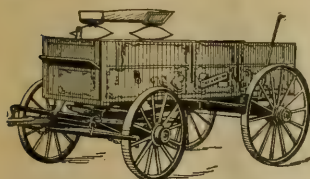
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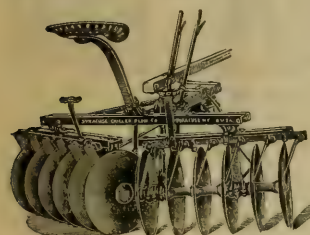


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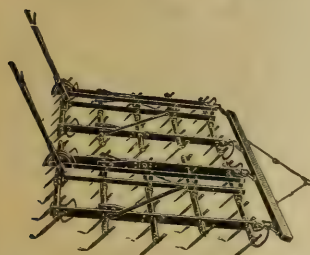
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The Auburn Wagon is too well known to need any comment, I guarantee all sold by me.



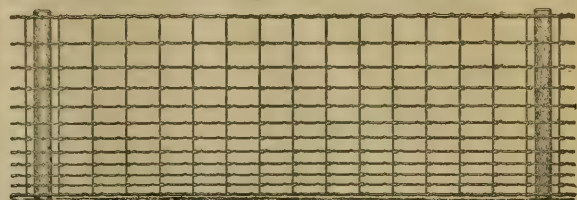
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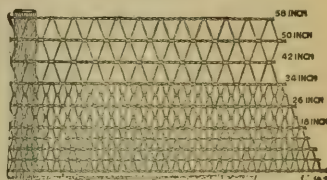
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tied together securely with steel wire stays in uniform meshes make the substantial, solid, handsome

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Write My Address in Your Memorandum Book So You May Have It at All Times.

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Prepared Agricultural Lime
Excelsior Tobacco Fertilizer
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Special Wheat Fertilizer

LEE'S

IMPORTED THOMAS BASIC SLAG and GERMAN FRUIT GROWER.

LEE'S PREPARED AGRICULTURAL LIME used on land with a fair amount of Humus is excellent for Corn. Apply 300 lbs. per acre in the drill. It prevents bud worms and keeps crop green and growing in dry seasons. When applied broadcast use double quantity. It will improve the land. When corn is laid by sow Cow Peas or German Clover and obtain good fallow for next crop. Improve your old broomsedge fields by plowing under deep. Sow Cow Peas and apply 300 lbs. LEE'S PREPARED AGRICULTURAL LIME, per acre. Forage obtained will more than pay the expense; land will be in fine condition for winter Oats or Clover in the spring.

Lee's Special Corn and Lee's Special Wheat Fertilizers have given good results where used. Write for circular.

A. S. LEE & SONS CO., Inc., Manufacturers, Richmond, Va.

and lime and sow crimson clover and rye. Then turn this under in the spring and sow the alfalfa. Advise me if I can improve on this plan. The ground, I think, needs to be drained. Give me directions for draining: depth of ditches, width apart and the cheapest and best material for construction. Would stone the size of nutmegs thrown in the ditch to the depth of one foot give sufficient drainage? as I have lots of them convenient. I have seen several trials for alfalfa and as many failures simply because of neglect of a very important part of the preparation or time of seeding.

R. N. L.

Loudoun Co., Va.

We always advise the sowing of alfalfa in the late summer or early fall in the South except in the mountain sections of the west of this State and North Carolina where the winters are severe. We would therefore change your suggested preparation by following the crimson clover and rye with cow peas again to be cut for hay in July or August. When preparing for the second crop plow deep and make the land fine and apply 400 lbs. of acid phosphate per acre so as to insure a heavy growth which will smother down all weeds. After the cow peas are cut do not plow again, but cut up fine, but not deep, with the disc harrow; applying and working in 400 lbs of bone meal per acre and then inoculate the land either with soil from an old alfalfa field or with bacteria from the Experiment Station. Then sow the alfalfa seed 25 lbs. to the acre, sowing half the seed one way of the field and the other half the other way and harrow in lightly and roll. The seed should be sowed in August. If your land needs draining it is no use to sow alfalfa until this is done. The best system of draining calls for tiles. No other system will give good and permanent results. If the work is done at all it ought to be done so as to be effectual and lasting. Once well done the work should stand for a life-



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BLACK FOR SALE PEAS.

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DAVID WALLESTEIN & Co., 1213 E. Cary St., Richmond, Va.

time. To do it well with tiles, should not cost over \$20 to \$25 per acre, and this will certainly be money well spent if draining is needed. We have drained scores of acres of land and always with tiles and with profit. The drains should always be put in deep, not less than 30 inches and better 36. It is the underlying water which causes the trouble when land needs draining, not the water which falls on the surface. The distance apart of the drains depends on the quantity of water to be removed. We usually put them in 7 to 10 yards apart and made a complete success.—Ed.

THRESHING COW PEAS.

I learn that the corn shredder and husker will thresh agricultural peas satisfactorily. Answer in next issue of Planter if it will do it.

JOS. B. GORRELL.

Culpeper Co., Va.

Yes. We know of several planters who so thresh.—Ed.

CRIMSON CLOVER.

How and when is best time to sow crimson clover? When do you mow it, and is it a good hay, when it is cured? Is it a good land improver? After being mowed, is field much good as a pasture? Are you apt to get a stand on moderately good land? Which is best, wet or dry land.

P. K. ARTHUR.

Bedford Co., Va.

Crimson clover should be sowed from July to the end of September. It is ready for cutting in April and May. May be grazed lightly during the fall, winter and up to March. It makes no growth after being cut, as it is only an annual. It makes good hay if cut when just coming into bloom, but is not safe to feed to horses if allowed to stand until the seed forms. It does best on dry land. It is a great improver of land.—Ed.

FERTILIZER FOR COW PEAS.

I wish to ask through your columns: What kind of fertilizer would be best to use for peas? I have land that usually makes from one thousand to fifteen hundred pounds of cotton per acre. When peas are planted in corn on said land, they grow up about five to six inches high and die. I got lime but it came too late. Please let me know if lime is the right kind of fertilizer to use.

W. L. FLOWERS.

Darlington Co., S. C.

The land needs phosphoric acid and probably potash. We would apply 300 lbs of acid phosphate or 1,000 lbs. of raw phosphate rock and 50 lbs. of muriate of potash per acre. Lime should be applied on the land after the pea crop is harvested or plowed

Wool Wanted.

We Pay Top Prices.

We will need a large quantity of wool this season to fill our orders, and want to handle your crop. We buy your wool delivered at your depot, free of any expense to you whatever, and are in a position to pay you top market prices. We furnish you with sacks to ship in when needed. Checks sent promptly day wool is received. Write us as soon as you are ready to ship, state quantity you have, and we will advise you what we will pay.

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Seeds, Fertilizers and Wool.

SEEDS. We sell every kind of seed for field and garden of best quality, and as low as same qualities can be bought in any market.

FERTILIZERS. We sell Fertilizers for every crop, under our own brands. All who have used our High Grade Tobacco Guano Corn Grower, Wheat and Grass Fertilizers Pure Raw Bone, and High Grade Acid Phosphate, analyzing from 14 to 16 per cent, pronounce them the best they have used.

WOOL. We buy all the year round, and PAY THE HIGHEST MARKET PRICES. Parties wishing to purchase will find it in their interest to see us before buying.

When corresponding with our advertisers always mention the
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down. Use rock or shell lime 25 bushels to the acre. If you have the other lime you mention you can use it with advantage, but the cost is greater.—Ed.

GRASS FOR NAME—ALFALFA.

I send herein a sample of grass found in my alfalfa field and ask for name. I thought maybe it was tall meadow oat grass. There were 46 stalks in the bunch, which I suppose came from one seed. I am today cutting my first crop of alfalfa sown the 25th (I think) of last September. A part of it (two-thirds perhaps) is very fine, the rest, though in the better part of the lot, is somewhat thin and not more than 7 to 10 inches high. I think too good a stand to plow up though. Would you advise me to try and patch it up this fall, and what kind of fertilizer would you advise me to use? I have some stable manure, but as I have been feeding timothy hay I fear this will put other hay in the alfalfa. How would bone meal answer, and how would you apply it? I have seen enough of my little experiment with alfalfa to be convinced that it is the forage crop for this country. I must tell you I like the Planter and would not be without the information I have gotten from it each month for what I pay for it for the year. I find it a help in time of need to me, and expect to take it as long as I live on a farm.

J. W. C.

Halifax Co., Va.

The grass sent is Rescue grass. It is one of the Bromo grasses (Bromus unioloides). It is grown largely in some of the Southern States and is a good grazing and hay grass on land and in sections where suited. It has not been much grown in this State. Patching alfalfa usually is not a success. However, as you have a fair growth of plants it may be worth trying. We would harrow the piece well in August and then sow 100 lbs. inoculated soil on it and bone meal at the rate of 300 or 400 lbs to the acre and reseed with half a seeding of alfalfa seed, say 10 lbs to the acre. We would not apply the stable manure as it would certainly introduce the timothy. Thanks for your kind remarks as to the Planter.—Ed.

Loudoun Co., Va., Mar. 14, '06.

I would not want to be without the Southern Planter.

F. R. WELLER.

Lunenburg Co., Va., Mar. 20, '06.

I like the Southern Planter very much.

T. W. B. SEWARD.

Buckingham Co., Va., Mar. 21, '06.

I consider the Southern Planter a valuable help to the farmers of Virginia and the South. I do not want to be without it.

J. B. HANES.



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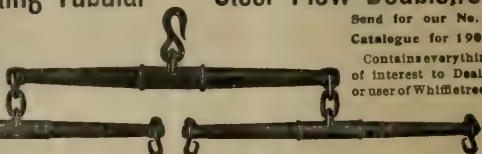
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Building. Time has proved its enduring qualities. Thousands of Barns, Houses, Residences, Poultry Houses and Buildings of every kind are covered with this superior material. You do not need it all we represent it, or if you are not perfectly satisfied in every way just send to us a dollar back at our expense and we will refund the purchase price. If you want quick delivery, now is the time to place your order. Send us diagram of the building you have to cover, and we will quote you a freight (freight price on such covering as we deem best suited for your purpose. Ask For Catalog No. 166. Lowest prices on Roofing, Ice Trough, Wire, Pipe, Fencing, Plumblings, Doors, Household goods and everything needed on the farm or the home. We buy our goods at sheriff's and receiver's sales.

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CATALOGUES, PAMPHLETS, ETC.

The following catalogues reached our table since last issue:

The International Stock Food Farm, owned by Mr. M. W. Savage, Minneapolis, Minn. This is one of the most beautiful catalogues we have seen this season. It is an edition de luxe. In addition to photographs, pedigrees, etc., of his five Champion Stallions, Dan Patch, Cresceus, Directum, Roy Wilkes and Arion, the catalogue is most beautifully illustrated with scenes about the farm. We suggest to all who are interested in blooded horses to get this catalogue at once as it will doubtless prove a revelation to them.

T. S. Cooper & Sons, Coopersburg, Pa. This is also a most beautiful catalogue, giving photographs, pedigrees, etc., of a number of imported Jersey cattle, which were sold on May 30th last. Messrs. Cooper and Sons are to be congratulated on their importations and also on the handsome catalogue describing same.

Catalogue No. 134 of the Chicago House Wrecking Company, Chicago, Ill. This concern purchased the fifty million dollar Louisiana Purchase Exposition as it did the former great fairs since 1893. Practically everything needed in household or on the farm is described and priced in this catalogue.

The Iron Age book, being the 1906 edition of the Bateman Mfg. Co., Grenoch, N. J., makers of the celebrated Iron Age farm and garden implements.

Large English and American Berkshire Hogs bred or owned by Mr. W. H. Coffman, Bluefield, W. Va. This catalogue is fully illustrated and contains pedigrees of the stock offered.

A Pocket Manual of Plant Diseases from Jas. Good, Philadelphia, Pa., is a useful booklet and should be largely circulated.

Special Spring offering of high-class young Jersey Bulls by Biltmore Farms, Biltmore, N. C. This booklet is well gotten up, having photographs and pedigrees of the stock offered.

South Western Poland China records, volume No. 2 of 1905. The address of the Association is Gadsden, Tenn.

The proceedings of the National Poland-China Record Company and Ohio Central Poland-China Association Consolidated. Parties desiring these proceedings should address Mr. A. M. Brown, Secy., Winchester, Ind.

The Culture of Water Lilies and Aquatic Plants by Peter Henderson & Co., New York City. This is a very beautiful catalogue and will be sent free on application.

Supplement to 1905 catalogue of C. H. A. Dissinger & Bro., Wrightsville, Penn., giving illustrations, drawings, etc., of their "Capital" Gasoline Engines.

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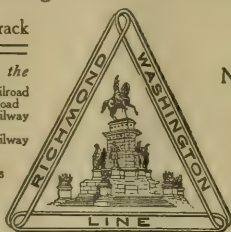
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Record 2:21½, bay horse

by Sidney, 4720, dam Crown Point Maid, by Sidney, 1900, sire of Newshorn, 2:15½, and 7 others in list. Fee \$35 season.

ROD OLIVER, 36169,

chestnut horse, 5, by Electrite, 10878, dam Lady May, dam of Blondie, 2:18½, etc., by Port Leonard, 12963. Fee \$25 insurance.

MOKO Jr.,

Brown horse 5, by Moko, 2447, dam Rosa Baron by Earl Baltic, 17721. Fee \$25. Insurance.

RED DILLON, 38696,

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"IN THE STUD." The Mammoth Jack KING JUMBO,

A good individual and promising sire. Fee \$5 leap; \$10.00 season; \$15. insurance. O. N. NUCKOLS, owner, Rio Vista, Va. R. F. D., No. 1.

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A pamphlet describing the Delaware Herd of Royal Angus cattle owned by Myer & Son, Bridgeville, Del. Look up their advertisement in this issue and send for the pamphlet.

"Lee's Prepared Agricultural Lime and how to use it" is a circular issued by A. S. Lee & Sons Co., Inc., Richmond, Va., who have an advertisement elsewhere in this number.

Reasons why farmers should raise Mules is a circular from the Windsor Stock Farm, Elko, Va.

Catalogue No. 24 of J. Andrae & Sons Co., Milwaukee, Wis., giving illustrated details and photographs in regard to telephones, switchboards construction materials. Farmers especially should have this catalogue; it is sure to interest you. Look up the advertisement of this firm elsewhere.

From American Jersey Cattle Club: "All About Jersey Cattle," a 30-page booklet by Mr. R. M. Gow; Register of Merit of Jersey cattle, established by the Club; The Jerseys at the St. Louis Exposition and the Dairy Cow Demonstration at the Louisiana Purchase Exposition.

Powhatan Co., Va., Feb. 23, '06. The Southern Planter is a very kind friend and one that I would not like to be without as I find it very helpful.

E. DARRELL JERVEY.

LORD CHANCELLOR 36614,
trial 2:27½, trotting.

Black horse foaled 1899, 15.3 hands, weight 1100 lbs. sired by Dare Devil, 2:09 (son of Mambrino King, 1279, and Mercedes, by Chimes, 6348.

1 dam Princess May R., by Prince Regent, 2:16½ (son of Mambrino King and Estabell, by Alcantara, 2:23.

2 dam Mary Weston (dam of 3 producers) by Mohican, 619.

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FANCY HAL, (saddle stallion) bay horse, by Prince Hal, dam, Fancy Girl, by Fancy Boy. KING OF SPAIN, black Spanish Jk. Fees, \$5 leap; \$8 season; \$12 insurance. Address,

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Record 2:20, bay horse, by Billy Thornhill 8707, dam Sweepstakes, by Sweepstakes, 2:08, sire of Captain, 2:10½ and 7 others in list. Fee \$20 season.

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Bay horse, 4, by Elroy, 2442, dam Fern, 2:18½, by Potosky, 3638. Fee \$20 season.

ALFRED NELSON,

Bay horse, by Alfred G., 12452, dam Madge, by Hambletonian 1:57. Fee \$15 season.

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Foxhall McGregor,

Bay horse, by Robert McGregor, 2:17½, dam Cleo, 2:19½, by Gambetta, 1172.

Note.—Robert McGregor, sired Crescens, 2:04½, champion trotting stallion.

Address, McEACHERN BROS. Wilmington, N. C.

White Tips, 2:17 1-4,

Bay horse, by Clay, son of Walker Morrill 2557, dam Mittie Belote, by Signet, 17158.

Address, J. B. Trueheart, Chesterfield C. H., Va.



a new pump it will pay you to write to the factory of the Williams Pump Co. before ordering from other parties.

Editor's Note.

We wish to call the attention of our readers to the small advertisement of the Williams Pump Company in this issue. We have investigated the free offer mentioned in the Williams Pump Company's advertisement, and are pleased to say that the Williams Pump Company do all they say they will do in every respect. The Williams Patented Pump is a very superior pump and sold at a very low price, quality considered, and is guaranteed by the manufacturers to give satisfaction to each and every user. These pumps will, a long-felt want, on account of their durability, ease of operation and simplicity. A brass drain cock prevents freezing. The stock is made of steel and will last for years. The base being adjustable is another most desirable feature. To replace an old muck-leather in a Williams Pump, all that is necessary to do, is to remove the false run and handle. All repairs done above ground in just a few minutes. Williams Pumps are practically "wooden pumps made of iron." If you need a new pump it will pay you to write to the factory of the Williams Pump Co. before ordering from other parties.

Princess Anne Co., Va.,

Mar. 21, '06.

I think every one who lives in the country should take the Southern Planter.

A. W. BELL.

SOUTHERN NURSERYMEN'S ASSOCIATION.

The annual meeting of this association will be held in Chattanooga, Tenn., August 15th, 1906. All of our readers interested in nurseries and fruit-growing are invited to be present. A splendid program will be arranged for their edification.

SHE MIGHT HAVE DIED FROM PARALYSIS CAUSED BY SCARLET FEVER BUT WAS CURED BY SLOAN'S LINIMENT.

Biloxi, Miss., April 25, 1903.

Dr. Earl S. Sloan,
Dear Sir:—Four years ago my little girl was dangerously ill with Scarlet Fever. She seemed to be dying; her head was drawn back and she suffered agony. The doctor tried remedy after remedy but failed to relieve the pain, until as a last resort he used Sloan's Liniment. My child began to experience relief immediately and is living and well today. I always keep Sloan's Liniment in the house now, and use it for every emergency.

Gratefully yours,
P. A. ST. AMANT.

6346 Star Ave., Chicago, 2-10, '06.
Dr. S. A. Tuttle,
I had a very bad attack of rheumatism last August, and after using only one bottle of your ELIXIR, I was immediately relieved. I can heartily recommend your remedy to anyone suffering from rheumatism.

Yours very truly,
SARAH E. SMITH.

Campbell Co., Va., Mar. 4, '06.
I cannot afford to be without the Southern Planter and enjoy it immensely.
B. M. S.

FARM FENCES.

Fences on a well fenced farm cost so much that it is of the utmost importance to thoroughly investigate quality before buying.

A good fence, like your farm buildings, is a permanent improvement, an investment that you can hand down to your heirs. It holds all your stock all the time, prevents intrusion from neighbor's stock, and lasts.

Page Fence is undoubtedly a good fence investment, because it is made of the strongest coiled coil spring wire, heavily galvanized, and is woven in the most practical manner—just horizontal and cross bars woven together. No locks, no staples and no cut ends or rough joints. The woven fabric cannot come to pieces.

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If you need fencing now, or in the near future, turn to their advertisement on another page of this issue and write them. Their printed mat-

ter covers all the points of superiority of Page Fences and tells how it may be erected at the cost of common soft wire fencing

GASTRONOMIC

A little girl who was not feeling well was taken to see the doctor. After feeling her pulse and inquiring the symptoms, he located the trouble as coming from the liver.

"If that's my liver," said the little girl, "then I want to know where my bacon is.—June Lippincott's.

THE WORM TURNED.

A village doctor whose most troublesome patient was an elderly woman practically on the free list, received a sound rating from her one day for not coming when summoned the night before.

"You can go to see your other patients at night," said she, "why can't you come when I send for you? Ain't my money as good as other people's?"

"I do not know, madam," was the reply, "I never saw any of it."—June Lippincott's.

DORSETS AT "MORVEN PARK."

The manager of the live stock department at "Morven Park" writes us that their Dorset Ram Lambs are

the finest this year they have ever seen. Dorset lovers will do well to take a look at them early or get in correspondence with the farm and get their orders booked early.

FRUGAL JAMIE.

One day, while loitering in the doorway of a tobacco-shop, a Scotchman and his friend entered.

Said Donald, "Will ye have a cigar, Jamie?"

"Yes," responded his friend.

Donald then asked the shopman for two thrup-penny cigars, and after both had lighted up he passed on about his business.

Jamie, canny Scot, quietly took a few puffs at his cigar, then slowly turned toward the tobacconist and said, "Mester, you sell these five for a shilling don't you?"

"Yes, sir," said the dealer.

"Well," said the Scotchman, at the same time fumbling in his vest-pocket with thumb and forefinger, "here's a sixpence; giv' me t'other three."—June Lippincott's.

The 27th Annual Exhibition of the Shenandoah Valley Agricultural Society will be held at Winchester, Va., October 16-20, 1906.

R. V. WORSLEY, Secy.
Winchester, Va.

W. K. BACHE & SONS,

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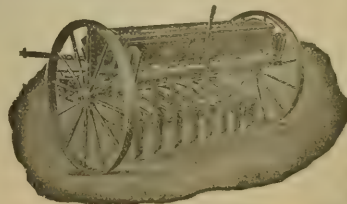
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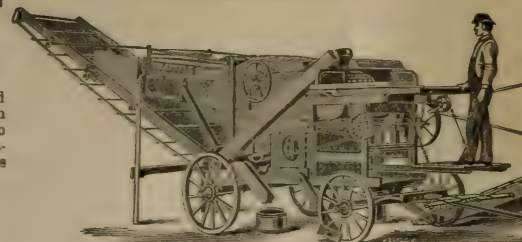
They are built in first-class manner, and are strong and durable. The price is within the reach of all. We guarantee them to do the work satisfactorily. We will mail catalogue and testimonials, and quote prices on application.



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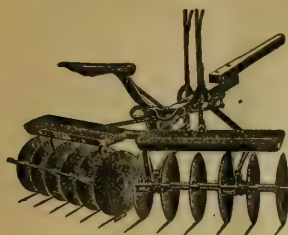
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Watauga Co., N. C., Feb. 20, '06.
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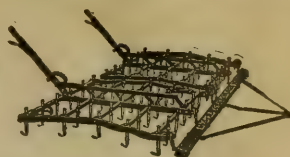


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MAGAZINES.

The June Century is a travel number. There is an account, by Wladyslaw T. Benda, of "Tatra," a mountainous region between Galicia and Hungary. There are word and picture memories of the charming river Marne from its source to Paris by Elizabeth Robins Pennell and Joseph Pennell. Harry Stillwell Edwards, author of "The Two Runaways," writes of "The Negro and the South," an optimistic, and, for a Southerner, an unusual, view of the black man in America. Another of Camille Gronkowski's papers on the historic palaces of Paris deals with the Elysee Palace, the official home of the French President; and Ernst Von Hesse Wartegg describes with interesting detail the wonderful Alpine trolley partly completed to the Jungfrau peak. In this number also begins the new serial by Anne Warner, creator of the imitable Susan Clegg. "See France With Uncle John" is the title; and the first chapter promises that Uncle John will prove to be a creation full of humor. Some of the short stories—there are several of them—also have the travel spirit.

A strong feature of the number, in point of popular and patriotic inter-

est, is the story of "The American Hero of Kimberley" (George F. Labram, of Detroit,) by T. J. Gordon Gardiner. Mr. Labram's services during the siege of Kimberley—and one must read Mr. Gardiner's narrative to the end to realize how many and how great these were—were publicly referred to by Lord Roberts as not only among the most momentous in the South African campaign, but in their own way unparalleled in modern warfare. This almost unknown story of American enterprise and resource receives a tragic cast from the incident of the killing of Mr. Labram just as the siege was almost ended, by a "good-night" shell.

A presentation of "The Spelling Problem" and the present aims of the reformers by Dr. Benjamin E. Smith is of much timely interest.

The June St. Nicholas is a number to read through at one sitting—for Harry wins the skating championship for "the school in 'The Crimson Sweater';" in "From Sioux to Susan," Sue and Virginia reach Hope Hall and begin their boarding school adventures; Pinkey Perkins has the egg-collecting fever; Helen Nicolay's "The Boys' Life of Lincoln" paints

vividly Lincoln's trials and and courage during the dismal days of the Civil War; and Grace MacGowan Cooke tells a new plantation story, that of "The Lazy Goose." There are a number of short stories besides, "The Master Hand," "What's in a Name," "A Hand-made Flag," "The Invention of Soap Bubbles," "A True Story of a Newfoundland dog," "The Cure of Joe's Beesting" and "Polly's Pound Party," with plenty of rhymes and pictures.

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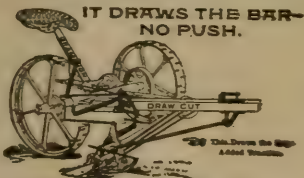
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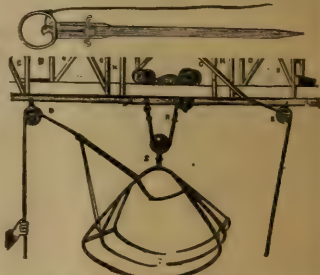


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Agriculture is the nursing mother of the Arts.--XENOPHON.
Tillage and pasturage are the two breasts of the State.--SULLY

67th Year.

Richmond, Va., July, 1906.

No. 7

Farm Management.

WORK FOR THE MONTH.

At this time of the year we have been accustomed to give our views as to the prospects of the crops now growing and advice as to what should be done to make good deficiencies where they exist. This year we are unable to enter on this work with very cheerful anticipations of good results generally. The winter was on the whole a mild one and the earlier months of the year were conducive to growth, and gave good opportunities for preparing the land for the spring crops, but the last three months have been abnormal. April was mild and dry, May cold and dry and June has been a sunless, cool and showery month up to this writing (20th inst.). The rainfall was deficient all over the South until the month of June. Many sections of this and other Southern States not having had much over 50 per cent. of the average and in some sections the drought has been quite serious and is even yet not broken. In this State and North Carolina the rainfall of June has been quite ample and has greatly improved conditions for the fall crops, but came too late for the wheat and oat crops to be materially benefitted. As a consequence of this deficient rainfall and the accompanying cold weather of May wheat and oats are short in the straw and thin on the ground and the heads are neither so large nor so well filled as we could desire. In some section of this State prospects for wheat are somewhat better owing to local rains, but on the whole, we don't expect the outturn of the crop to be up to the average even if the weather should now become favorable for har-

vesting. At this writing, much wheat is ready for cutting but the weather is too showery and uncertain to encourage the putting in of the binders and should this continue much longer further depreciation in the yield must occur. In the North and West drouthy conditions have prevailed up to quite a recent date and much deterioration in condition from the May estimate has been caused. The spring wheat area seeded is less than that of last year and the whole area in wheat in this country will therefore be somewhat less than the crop harvested last year with a prospect of a reduced yield per acre. The prospect, therefore, is for a smaller crop than last year. Under condition prevailing up to two years ago such an outlook as this would have caused a considerable advance in the price of wheat by this time, with a certainty of a further considerable rise before the close of the year, but thus far the market does not seem to have been disturbed by the outlook. Canada is putting in a large crop and the supplies from Argentina are keeping the European market's well supplied and there is a prospect of a larger export from India and Australia. We don't look to see any considerable rise in the price of wheat unless the Canadian crop should turn out a poor one or the harvest time in that country be unfavorable. We think the present price will probably be fairly maintained until the outturn of the Canadian and European crops are fairly assured. Should these turn out to be satisfactory wheat in our opinion will likely be lower than higher. The English market which is the determining factor in the price of wheat is not now nearly so dependent on this

country for its needed supplies as it formerly was and this state of affairs is likely to continue. So long as trade continues good here the home demand will be large, but far short of consuming what we are producing and the surplus for export will, when sold in the English market in competition with the Canadian and Argentine supplies, fix the price of the grain here.

The oat crop throughout the country is likely to be very much smaller than that of last year. The spring has been very hard upon it in most of the States of large production and the average condition is very much below the normal. In Ohio the condition has fallen 20 points within a month and in some States the average condition is barely 50 per cent. of the normal. Winter oats in the South like wheat have suffered from the drouth, and Spring oats are practically a failure here. The prospective decrease in the yield of this crop should have a good effect on the price of corn, indeed it has already caused corn to be distinctly higher in value, and this will undoubtedly be the tendency throughout the season. Whenever oats are scarce and dear, corn always hardens in price as the two grains are used so largely interchangeably as stock feed. The prospect for the corn crop is not the most encouraging, as owing to the drouth, which set in just at the time of planting much of the seed planted never germinated and large areas have had to be replanted. This second planting, made since the rain came is coming well, but the plants are yet small and this will cause the crop to be later than usual. There is yet, however, plenty of time for the crop to grow and mature well, and with weather such as we are now having, warm and moist, lost time can be made up, especially if care be taken to keep the crop well worked so as to conserve the moisture in the land. In many of the western and middle States the condition of the crop is much below that of last year at the same time and and it is doubtful whether this can be regained.

The area planted in cotton is somewhat larger than that planted last year, and the average condition is about normal for the time of the year. In some of the States in the northern part of the cotton section considerable damage was done by the late frosts and much replanting had to be done. This cotton is late and small and will require much attention to bring it up to a normal condition.

Tobacco planting was much delayed by the drouth and in some sections plants became overgrown before they could be set out, whilst in others there was a deficiency of plants from damage done to the beds

by frost. The indications are that a smaller crop has been set out than last year and this will be later than usual. This condition of the crop seems to be general in all the tobacco growing States. Hay has been seriously cut short by the drouth in every section of the country. In the South this shortage can yet be made good by good second crops—and the planting of forage crops, but in the North and West there is likely to be a considerable reduction in the quantity available for shipment.

The planting of forage crops is being given much greater attention than used to be the case, and large areas of these are already planted and the work is progressing as fast as the land can be got ready.

Summarizing the foregoing, we think it may be fairly said that crop conditions at present are not indicative of great yields, indeed it would seem that the probabilities are that all the staple crops are likely to be less in quantity than last year, but in excess of those of the year previous. If weather conditions from this time are normal with good attention given to the crops already planted and every effort possible made to supplement these by the planting of such crops as can yet be planted the year may possibly be made to give to Southern farmers a fair average return for their labors. Prices for most staple farm products are distinctly higher than the average and the demand is good and this makes it possible for even crops somewhat shorter than the average to return as much as average crops would under less favorable market conditions.

The cultivation of the Corn, Cotton and Tobacco crops should have constant attention so long as it is possible to get through the crops without breaking them down. These crops are already late and will require all the stimulation which good and frequent cultivation can give them to make them mature well before frost. The ground now is generally well saturated and by careful and frequent cultivation this moisture may be so conserved as to supply the needs of the crops through the hot weather. Beware of allowing a crust to form on the surface, once crusted the moisture in the subsoil will rapidly find its way to the surface and be lost to the crop. As soon as ever the ground is dry enough to work, put in the cultivator and cover the surface with a mulch of loose soil and the moisture will be kept around the roots and the crop will make progress. Cultivate level always, and do not depart from this rule when working the last time. The throwing of a furrow to the crop at the last working is throwing away the

last chance of helping the crop to do its best. It is an invitation to the sun and wind to do their most effective work in drying out the moisture and serves no good purpose in supporting the crops against stress of weather. Especially is it important in the case of the corn crop to avoid throwing the land into ridges and furrows at the last working. Corn calls for an enormous quantity of water to perfect its growth and much of that which falls on the land after the last working is lost to the crop when the field is thrown into ridges and furrows. It finds its way quickly into the furrows and is run off the field instead of into the subsoil. Keep it level and the water will be equally distributed in the subsoil and support and perfect the growth of the crop. Previous to working the last time, sow cow peas, crimson clover or sapling clover or a mixture of all three amongst the corn and cultivate into the land. This will provide a growth of nitrogen gathering plants to shade the land and conserve and add to the fertility of the soil and in the fall will make pasturage for the stock and during the winter will cover the land with a soil conserving crop. Where the corn is to be followed by wheat the cow pea crop is especially useful in that it provides much of the nitrogen which the wheat requires to start its growth and support during the winter. If the growth of the cow peas should be a heavy one it may be well after the corn is cut to graze down the cow peas or even cut them for hay before preparing the land for the wheat crop as it is never conducive to the best success of the wheat to sow it on a light puffy soil which must be the case when a heavy crop of peas is turned down. If the crop should not make a heavy growth the best way to utilize it for the wheat crop is to cut it into the land with a disc harrow and not to plow the land at all before seeding the wheat. Sow crimson clover amongst the cotton before cultivating the last time. This will make a cover for the land during the winter and help greatly to conserve and improve the fertility of the land besides giving grazing during the winter and early spring and an early forage or hay crop or a good green fallow to turn under for the next crop.

After the wheat and oat crops have been harvested, if grass or clover was not seeded in them let the stubble be at once broken with the disc or cultivating harrow run both ways and sow either cow peas and sorghum or a mixture of crimson clover, wheat, oats and rye on the land and cut in with the disc harrow not burying too deeply. If the latter mixture is

seeded, sow 10 pounds of crimson clover and 3 pecks of wheat, oats and rye mixed in equal parts per acre. Three or four pounds of rape seed or turnip seed may also be sowed per acre along with the crimson clover and grain mixture. This will give good grazing for stock during the fall and winter and greatly help the land, and if turnips are sown the large bulbs can be pulled and be stored for feeding to sheep and cattle during the winter and spring. It is much better farming to thus utilize the stubble fields than to permit them to grow up in weeds which only serve to further deplete the fertility of the land without making any contribution to the stock carrying capacity of the farm besides making work for another year in the crop of weeds with which they fill the land.

Where clover and grass was seeded in the wheat and oats, do not allow the stand to be lost by letting the weeds get the mastery. These will grow faster than the clover and grass, and if not checked will soon so exhaust the moisture out of the land and the plant food in it as to ruin the clover and grass. We have seen many a good stand of clover and grass lost this way. As soon as the weeds are tall enough to be cut with the mower have it run over the fields and leave the cutting as a mulch for the clover and grass. Repeat this as often as the weeds get tall enough and thus prevent the seeding of the weeds or impoverishment of the land. A very large proportion of the weeds infesting our lands are merely annual plants and if they are prevented seeding there is an end to their existence. Growing a crop of weeds is a poor way to make farming profitable.

Keep on sowing forage crops at every opportunity until the end of the month or even into August. The hay crop is short and something else will be needed to fill its place. The probability is that hay will sell well on the market next winter. If you have made a crop hold it until the market calls for it and provide other feed for the stock in the shape of forage crops. We know many farmers who sell nearly all the hay they make at a good price and yet keep a heavy head of stock on the farm in fine condition with the forage crops and corn stover, for which there is no market. This is good farming. A farmer can wisely sell his hay as well as his surplus grain, if only he takes care to provide some other crop to take its place in the feeding of live stock on the farm to make manure and convert into beef, mutton, pork, milk or butter those products which can only be marketed profitably

in these forms. German or Hungarian millet should be seeded at once. Prepare the land finely and sow at the rate of one bushel to the acre. If the land be not in fair fertility, apply 300 pounds of acid phosphate per acre. Harrow the seed in and roll if the land be dry enough. This crop will be ready to cut in about 60 or 70 days and makes a good hay, if not allowed to form seed. Cut when in bloom, and the hay can then be fed safely to all kinds of stock. Millet with seed in it is not safe to feed to horses. When the seed is not allowed to form, the crop is not exhaustive to land. Cow peas or cow peas and sorghum or cow peas and soy beans all make excellent hay crops and can yet be sown. Sorghum also makes excellent feed and can still be sown. In our last issue we wrote fully on these crops and refer our readers to that number for further information. There is no farmer in the South who should let his stock suffer from scarcity of feed during the winter, even though he has lost his hay crop with such a choice of forage crops as he can yet grow with complete success, if he will only give the subject his attention at once.

Dwarf Essex rape should be seeded this month for fall pasturage for sheep and hogs. For these two kinds of stock rape makes most excellent feed, but is not suitable for milk cows as it has a tendency to taint the milk. It is also apt to cause bloating in cattle. Young cattle may be fed on it if care is taken not to turn them into the field when the rape is wet with rain or dew, and when very hungry. They should be first fed with other food and then be turned on the rape for an hour or two for the first week until they have become accustomed to the food. It is well also to observe this rule with sheep. Hogs do well on rape. One acre of this plant has been found to be equal to over 3,000 pounds of corn in feeding value with these animals. Sow 5 pounds to the acre broadcast or if sown in drills, which is the best way to make a fine crop, sow about 3 pounds to the acre in drills 2 feet 6 inches apart, and cultivate two or three times. Rape cannot be made into hay. Rape makes a rapid growth and will be fit to graze in about 50 days from seeding.

If you have not already planted your corn for filling the silo, it should have immediate attention. The better matured the corn is, short of the fodder being dry, the better and sweeter the silage. The crop should have time to grow enough and make ears and the grain on the ears be glazed at the time of

cutting. Do not plant too thickly, say plant in rows 3 feet apart and 6 or 8 inches apart in the row. This secures stalks well grown and upon which the sun has exerted its power and made full of matured matter not merely watery blades and stalks. From such corn as this a good sweet silage can be made which cattle and stock of all kinds will eat freely and do well upon and which will not shrink into the bottom of the silo. It will heat sufficiently to drive out the air and will keep well. In this issue will be found an article dealing with the building of the silo to which we refer those of our readers who are thinking of building. We wish more of them would take up this question of feeding silage. It is the most economical way in which to feed stock and they do better upon it than upon any other feed and a silo is the most economical way in which to store the corn crop for stock feeding purposes.

August and September being the two best months in which to seed alfalfa in all sections of the Atlantic Coast States, except in the mountains of the west, where it should be sown in the Spring, it is time for preparation to be made for the seeding of the crop. Land which is growing a cow pea crop, for which good preparation was made by deep plowing, and the fertilization of the land is suitable for growing an alfalfa crop. The cow peas should be cut off and made into hay and then an application of 20 or 25 bushels of lime to the acre be applied, and be cut in with the disc harrow, not going too deep. Leave then, for a week or ten days, and then commence to harrow and prepare a fine seed bed. Apply 400 or 500 pounds of bone meal to the acre and work in with the harrow and these inoculate the land by applying from 100 to 200 pounds of soil per acre from an old alfalfa field. In August sow 20 pounds of alfalfa seed per acre, sowing half each way, and harrow it lightly and roll if the land is dry enough. If soil from an old alfalfa field cannot be had conveniently procure Bacteria from the Experiment Station at Blacksburg and inoculate the seed before sowing, following the instructions carefully. There is much adulterated alfalfa seed on the market and we have had several very bad cases brought to our notice where a stand has been ruined by the use of this adulterated seed. When buying the seed have sample submitted and send to the Department of Agriculture at Washington for examination before buying. Where land not already growing cow peas is to be sown, have it plowed at once and harrowed and let stand for the weeds to germinate. When these

have begun to grow, harrow again and kill the weeds and repeat this two or three times. Then apply 20 to 25 bushels of lime to the acre and harrow in and let lay again for a week or ten days, then prepare finely and fertilize and inoculate as before advised and seed as directed. In selecting the land for alfalfa, look out for a good loamy soil having some clay in its texture, perfectly drained and with the water underlying it not nearer the surface than 12 or 18 inches. Alfalfa will not succeed on light sandy land. It requires plenty of plant food in the soil. It is absolutely useless to attempt to grow the crop on poor land. On land suited to it and put into fine condition, and made rich, it will produce more feed per acre than any of the staple hay crops of the South as now abundantly proved. We have reports from a large number of parties who have experimented with it from many different sections of this State and these are most encouraging. Crops of from 2,500 to 3,500 pounds per acre at the first cutting have been made, and several of these parties have already cut a second crop of equal weight to the first, and others are now doing so. These parties will yet cut at least one more crop this year and probably two, thus from 6 to 8 tons to the acre of the most nutritious hay made will be raised in one year. A crop with such possibilities cannot afford to be neglected by any farmer. Give it a trial.

Land intended to be seeded in grass should now be broken and harrowed so that the weeds may be encouraged to germinate and be killed in the subsequent working of the land before sowing the grass seeds. Weeds are great hindrances to successful grass seeding and every effort should be made to get rid of as many of them as possible before seeding. Encourage them to sprout by frequent cultivation and kill them by again cultivating. August and September are the two best months in the year for seeding grass in the South, and there is no reason why this should not be done successfully if only proper care is taken in preparing the land and making it rich. Grass will not succeed upon poor land. It may grow for a year or two but will not hold and make a compact sod unless there is plenty of available plant food in the soil. It calls for abundant supplies of phosphoric acid, potash and nitrogen. In most of our lands potash is in sufficient supply naturally if only made available by the application of lime to the soil. This lime, say at the rate of 25 bushels (1 ton) to the acre at the least should be applied as soon as the land is plowed, and be harrowed

in. Then in the course of preparing the land for the seed, apply either 400 pounds of acid phosphate or better, 1,000 pounds of raw phosphate rock per acre, and 200 or 300 pounds of bone meal per acre and work well into the land and sow grass and clover seed with no grain crop in August or September. Now is the time to begin this work and if properly done success should follow.

Prepare the land for rutabagas and turnips. Plow the land well at least 6 inches deep and make fine by repeated harrowing and rolling and then make rich by applying farmyard manure and phosphate and potash. We have frequently applied 25 tons of farmyard manure to the acre for growing rutabagas, and got as a result 25 to 30 tons of turnips to the acre. If not able to find sufficient manure use what you can spare and supplement it with 400 pounds of acid phosphate and 100 pounds of muriate of potash per acre. The crop may be seeded broadcast, but a much better yield of much larger roots will be made by sowing in drills 2 feet 6 inches apart and then thinning out the plants with hoes so as to stand about 8 inches apart in the rows. When sown broadcast about 3 or 4 pounds of seed per acre is required. If sown in drills from 2 to 3 pounds is ample. We have been several times asked whether we advise the growing of mangold wurtzel beets, rutabagas and turnips for stock feeding in the South. In reply we would say that we have always advised that these roots should be grown. It is true that we do not need to depend upon them, so absolutely as the English or Scotch farmers do, for the winter keep of stock as we can make here a succulent feed in the shape of silage from the corn crop which the English and Scotch farmer cannot make, but even with this feed, roots can be fed with great advantage to both cattle and sheep in the South. Whilst the nutritive value of roots as shown by analysis is not large yet they have an appetizing tendency and a cooling influence on the stomach and blood, which greatly tends to make the feeding of other feeds more profitable. Especially to sheep keepers are roots most valuable. No man who breeds lambs ought to be without turnips or rutabagas. Nothing else which he can feed his ewes will put them into as fine condition and keep them as healthy, and nothing else will so help the milking of the ewes. We can make these roots here just as well as they can be made elsewhere, and if we intend to have as fine stock as they have in England and Scotland, and to keep them in as fine condition as farmers do in those countries, we have

got to feed roots as well as fodder and grain. The corn crop, both fodder and grain is carbonaceous and heating in its nature, and all our stock would be better for some cooling feed to be fed in connection with the corn crop. Nothing meets this requirement so well as rutabagas, turnips and mangolds. We would strongly urge all farmers to grow rutabagas and turnips and feed them regularly during the winter. Their stock will be healthier and will make better returns for the other feed given them.

CROPS AS FACTORS IN IMPROVING LANDS.

In our article on work for the month we have strongly emphasized the importance of sowing forage crops as supplements for supplying the rough feed to stock, and especially have we insisted upon the growth of the legumes for this purpose. We want now to say a word in favor of growing these crops, simply as improvers of the physical and mechanical condition of the soil, and apart altogether from the effect which the legumes have in gathering nitrogen from the atmosphere. Dr. Thorne, the Director of the Ohio Experiment said recently, "Sand and clay are but the skeleton of a soil; Humus is its life." In making this statement Dr. Thorne stated a fact which farmers have far too long overlooked, especially in the South and to which their attention cannot be too repeatedly called. What all our soils most lack is *humus the life of the soil*. Without it the application of all the commercial fertilizer in the world will not make a productive and profitable farm. We have frequently emphasized the importance of making the soil a "*living soil*." Life is absolutely essential is a soil and without humus, no living soil can be had. From the time when our soils were first cultivated the planters of the South have been using up and burning out the humus in the soil and killing the life in it by a system of farming, or rather cropping, for it is not farming, which could have no other end than the ultimate exhaustion of the liberal supplies of humus placed in the soil by the Creator and kept constantly supplied by the dying vegetation of the forests and plants growing on the land, until man took a hand in the work and set about its destruction. Humus or decayed vegetable matter is that factor in the soil upon which depends its power to retain moisture and heat and to support the bacterial life upon which a living and productive soil depends. It makes a clay soil mellow, and prevents baking and crusting. It binds together a sandy soil and retains

therein the moisture upon which its productive power depends. It furnishes the humic acid which dissolves the mineral plant food in the soil, and that supplied in fertilizers, and makes it available for the support of plant life. It is the home and food of the bacteria which break down organic matter and release nitrogen and convert it into nitrates that plants can use. In a soil devoid of humus, little or no animal life of any kind can be found; even the worms are conspicuous by their absence, and yet these low forms of life are great factors in increasing the productive capacity of land. Experiments have conclusively shown, that where worms are abundant they will in a short time cover the surface of the land with a new strata of soil brought from the depths of the earth, rich in the mineral elements of plant food and in some unknown way will by their action increase the nitrogen content of the soil in which they work. Humus being therefore so essential to that condition of the soil which makes it responsive to man's efforts and productive of crops, it is all important that farmers should know how to procure it. They cannot buy it in bags from the fertilizer factory, they must, themselves make it or rather provide the materials out of which nature makes it. These materials are to be had in the South in more prolific abundance than in any other section of the country, and therefore there is no excuse for the condition in which we find the greatest part of our land here, viz.: almost absolutely devoid of humus and incapable of the production of profitable crops. Nature has done and is daily doing her part. She has covered the face of the unworked land largely with a broomsedge sod and a growth of young pines. These she annually renews and grows larger and they in their turn give back to the soil the dead grass and leaves; thus by slow degrees adding humus to the soil and fitting it for the production of crops. With nature doing this much for us, the farmers really do but little. They have at their command the power to do much. They can easily grow forage crops to supplement the straw and fodder made in the production of the grain crops of the farm, and if this be done, and stock kept to consume and convert them into manure they can return to the land in the form of the manure a great and valuable element for the making of humus and adding life to the soil. Even if only a light coating of this manure be given the place where it is put will show for years afterwards. In addition to this source of humus, the farmer has it in his power here in the South to make every year a crop for his barn and

a crop, and sometimes two for his humus factory the soil off the same land. The farmer of the North and West cannot do this. He can only grow one crop in the year and must elect whether this shall be for the barn or for the soil. Here he can follow his wheat and oats, made for the barn and granary, with cow peas or cow peas and sorghum or with soy beans or soy beans and cowpeas and return this crop to the land. He can follow these wheat and oats with crimson clover and a mixture of wheat, oats and rye, or with vetches and wheat, oats and rye which will grow during the winter and early Spring and be ready to turn down in April or May as a preparation for a corn crop. He can grow in his corn crop a crop of cowpeas, crimson clover or sapling clover. All these crops will pay the cost of their production, and much more, simply as feeders of humus into the soil. Even if cut for hay the roots and stubble will add much to the humus content of the soil, and the hay fed to stock will largely increase the manure heap and this will, when applied to the land increase the humus and supply bacteria to the soil. If after plowing down one of these crops a ton of lime be applied per acre and worked in, an alkaline condition of the soil, which will largely conduce to the spread of bacteria in the soil, will be secured. There are other crops besides these which are great makers of humus which can be grown. Amongst these the velvet bean is perhaps the most valuable for this purpose. Whilst it will not mature its seed north of South Carolina, it will make a most marvelous growth of vines and cover the land on which it is grown with a dense covering of verdure, so heavy that it cannot be well turned under until winter has killed it down. In Louisiana this legume will make a mat of vines on the land more than a foot thick, and it is being largely used by the Sugar Cane growers for keeping up the fertility of the land. Here the mat whilst not so thick is yet the heaviest of any crop which can be grown and it should be largely used for a humus making crop. It is not desirable to grow for any other purpose as the vines are so tangled and heavy that it is almost impossible to cure and handle them as hay. With such resources as these at hand it is a reproach to Southern farmers to have soil lacking in humus, and the power to produce profitable crops. Properly utilized these crops can make the fertilizer factory a very secondary matter in the farm management. Some raw phosphate rock and some lime will, used with these natural products, make land capable of producing the heaviest crops at comparatively a nominal cost per acre. It may be

necessary to help the land to produce these crops at first, but the cost of doing this is small compared to the cost of helping it to produce crops without humus in its texture. Two or three hundred pounds of acid phosphate per acre will almost certainly ensure a growth of peas, vetches, soy beans and velvet beans, the first year, and after this is secured then only raw phosphate and lime are needed and even these can largely be dispensed with except at intervals of three or four years if deep plowing and thorough preparation of the land before seeding or planting a crop is the rule. Fill the land with humus, plow deep and cultivate finely and productive land will be ensured. This is the time of the year to start the production of the humus factory. Do not let it go by without utilizing it for this purpose.

SOY BEANS,

We have recently had several enquiries as to the yield of soy beans in fodder and grain, and as to the propriety of substituting this crop for the cowpea crop to a considerable extent now that cowpeas are so much more costly than was formerly the case. We have always been strong advocates of the soy bean as a forage and grain crop, and see no reason whatever, to change our opinion. The longer we have experience with it, the more it commends itself to us. The hay made from the crop is large in yield and most nutritive in character, and when grown for the beans, the fodder is readily eaten by stock, and they do well on it whilst the yield of beans is good and will be better when we have got one or two of the most prolific and early varieties thoroughly acclimated. Men are at work bringing this about and another year or two will give us what we want. Discussing this matter with Dr. W. C. Stubbs, of Gloucester County, Va., recently he told us that last year he grew 32 acres of soy beans on his plantation in Gloucester. On this field he made over 100 tons of crop. From this he threshed out 800 bushels of beans. After the crop had been removed from the field he turned on to it a large herd of cattle and hogs for three weeks, and they cleared up every particle of the crop left and every bean shattered, and came off the land in fine condition the hogs being practically fat. This yield of beans is at the rate of 25 bushels to the acre. We have known 30 bushels made, but only on a small area. We believe that after we have got just the soy bean we want for this latitude, 30 bushels per acre will be a normal yield,

The bottom hoop should be placed about 6 inches from and this will be made on land which would not make over 25 bushels of wheat to the acre and that without the use of any fertilizer on fairly fertile land. The soy bean is also an improver of the land, belonging as it does, to the legumes and hence its growth is to be encouraged. As a feed for stock of all kinds, the beans are very valuable as they are the richest in protein of any of the leguminous crops. Hogs fed on a mixed grain ration of soy beans and corn make gains much faster than when fed on corn alone.

BUILDING A ROUND SILO.

Editor Southern Planter:

The method of constructing a stave silo briefly stated is as follows: First, the capacity of the silo needed must be determined. Silage weighs from 30 to 60 pounds per cubic foot, depending on the depth of the silage and the condition of the crop when put up. A fair average is about 40 pounds. Ordinarily, beef or dairy cattle should not be fed much over 40 pounds per day, or one cubic foot. If 20 cows are to be fed for 180 days, about 75 tons of silage would be required, allowing for the spoiling of from 2 to 5 tons. This would require the construction of a silo 15 feet in diameter by 24 feet high. It is a very simple matter to calculate the cubic contents of a square silo, but it is a more difficult matter with the round silo. The capacity of a silo 15 x 24 feet is determined as follows: The circumference of the silo is found by multiplying the diameter by 3.1416, which equals 47.5 feet. For every foot represented two 2 x 6 staves will be required, or 94 staves. In this case the staves would need to be 24 feet long. If staves of this length can not be obtained and 16 foot staves are substituted it would take 141. The feeding area of the silo would be the square of the diameter, that is, 15 x 15, multiplied by 0.7854, or 176.7 square feet. This multiplied by 24, the height of the silo, gives the cubic capacity, or 4,240.8 cubic feet. A silo of this size would hold approximately 85 tons, sufficient to feed 20 cows at the rate of 40 pounds per day for over 200 days.

CAPACITY IN TONS OF CYLINDRICAL SILOS WHEN WELL FILLED WITH MATURE CORN SILAGE.

Depth of Silo, Feet	Inside Diameter of Silo, Feet.				
	12	15	18	20	24
20	38	56	85	105	127
22	41	61	92	120	140
24	49	77	110	133	164
26	55	85	125	152	184
28	61	95	136	169	204
30	68	105	151	187	229

to the depth of about 2 feet for the foundation. The foundation may be made of concrete, brick or stone. If of stone, a wall 15 inches in thickness will be most convenient to build; if of brick one foot would be sufficient, unless the silo is very large and high when it might appropriately be made 15 or 18 inches. The foundation may be prevented from springing by laying curved pieces of iron in the wall. The concrete foundation will often be as cheap and more lasting and satisfactory in every way than any other type which can be used. There is not so much difference between the cost of the several forms of foundation as one would suppose. The floor may be cemented or made of tamped earth. This is largely a matter of choice so far as the preservation of the silage is concerned. Many farmers prefer dirt to cement when it becomes well packed. A cement floor will keep out rats and can be constructed cheaply and very simply by putting down a grout work of crushed stones to the depth of 3 to 5 inches over which a mixture made of one part of cement and three of sand is poured. After this hardens a two-inch coating made of one part of cement and two of clean, bright sand should be laid down.

The foundation of the stave silo may be made of 2 x 4's cut in 2 foot lengths at an angle which approximates the radius of the circle. Two pieces of 2 x 4's should be spiked together to break joints all the way around. To hold the foundation in place iron bolts provided with tap and thread are sometimes set in the wall, though later methods favor bedding the foundation timber in cement which holds them very firmly. The foundation should be laid flush with the inside wall so as not to leave a shoulder jutting out in the silo which will prevent the rapid settling of the silage. It is next desirable to set up four to six 4 x 6's depending on the diameter of the silo at equal distances around the circumference. These should be securely toe-nailed to the latter and plumbed and held rigidly in place by temporary staging. Before erecting these 4 x 6's holes should be bored through them with a 5-8 inch augur at suitable distances for the reception of the hoops which hold the staves in place. The hoops should be made of 5-8 inch round iron threaded for a considerable distance on either end. For a silo 15 feet in diameter the hoops might appropriately be three in number and 17 feet long. The hoops should be passed through the 4 x 6 uprights and secured by heavy washers and nuts. The long thread on the hoop permits the ready adjustment of the staves according to whether the silo is full or empty.

After selecting a suitable site, excavate the ground

the base of the silo, the second one foot above the first, increasing the distance 6 inches each time until a distance of about 3 1-2 to 4 feet has been attained. When the hoops are in place commence setting up the 2 x 6 inch staves which in this instance will be 24 feet long. Place the first one next to a 4 x 6 upright, and plumb it and make secure by driving two 20 penny nails through the stave and bending them over each hoop.

Another form of tightener commonly used in connection with the stave silo is made of two pieces of iron about 6 inches long with holes through either end just large enough for the hoops to pass through, making it a simple matter to adjust the staves at will by means of the tap and lock nut which holds the hoop. Quite recently oak strips 1 inch thick and 2 to 4 inches wide have been substituted for the iron hoops and have proven very satisfactory. They should be put on the same distance apart as the iron hoops and are generally made of three or four thicknesses of wood arranged so as to break joints and securely nailed to each stave. Wherever joints are broken they should go behind one of the bands. As these bands can often be sawed out of timber available on the farm and no tighteners are required, they can be utilized to advantage, and so far as recorded, silos built in this manner if securely nailed are entirely satisfactory. One of the reasons why so many farmers fail in the construction of silos is because they do not use enough nails or large enough nails. This matter can not be emphasized too strongly.

The work of completion is now comparatively simple except for the construction of the doors. In a 24 foot silo there should be about three doors, placed about 6 feet apart. The doors should be about 28 inches long in order to come between the hoops. They should be cut to a bevel of about 45 inches sloping to the inside. The doors should be from 24 to 30 inches wide. The staves above and below the door should be held in position by hardwood dowel pins, and the doors should then be fastened together by two curved battens run across the outside. When the door is put in position tar paper should be placed over the edges to exclude the air. While a roof is not absolutely necessary, one can be so cheaply built that it is a desirable addition to the silo. For a stave silo built outside the barn the roof may be constructed by spiking pieces of 2 x 4's or 2 x 6's to the top of the staves. Two of these pieces should be 2 feet long and two of them 4 feet long so as to give the desired slope to the roof. When they are spiked

in position cross pieces should be fastened to the top. A batted board roof can then be quickly and cheaply made. Many other forms of roof can of course be utilized according to the fancy of the owner.

All stave silos are built on the same principle, though there are many minor points of difference. The staves may be either rough, dressed on both sides, bevelled, sized, and "tongue and grooved." In a silo of small diameter, 2 x 4's are more satisfactory than 2 x 6's. Those who have had experience with the more expensive tongued and grooved silos do not favor their use, though many agree that the inside of the staves should be bevelled as it provides a smoother surface and the silage settles better. As a cheap and effective means of preserving food the stave silo has proven to be a success in Tennessee when carefully built, and just as satisfactory in the majority of cases which have come under my observation as silos that cost two or three times as much. The inside of the silo should be thoroughly coated with hot tar as a preservative and the outside may be painted if deemed advisable. As a matter of preservation it is a wise precaution and a good investment as a rule. The construction of neat and harmonious buildings on the farm is a matter worthy of consideration.

The modified type of round silo is built as follows: The foundation need not be dwelt on as that described for the round silo will be satisfactory in every respect. 2 x 4's are commonly used for the frame work of the modified round silo. They are generally set in the form of a circle, 15 inches from center to center, depending on the size of the silo. As it is often desirable to build a silo more than 30 feet high and it is a difficult matter to obtain 2 x 4's of that length, the scantling are lapped two or three feet and spiked securely together or the ends are sawed out to a depth of 3 or 4 inches and a heavy piece of galvanized iron inserted and the two ends squared and securely toe-nailed together. When this practice becomes necessary it is generally advisable to use 20 and 10 foot pieces of scantling, reversing the staves as set up so as to break joints. When it becomes necessary in the construction of a stave silo to use two pieces of staves, they are spliced together as indicated. The plate of the round silo is constructed like the foundation described under the stave silo. The lining of the round silo is made of 2 x 6 fencing split into four pieces. One-half of this should be dressed on one side and one-half on both sides. Commencing on the inside at the bottom the 1-2 inch x 6 inch boards are securely nailed to each upright with two 8 penny nails. A layer of acid proof paper is then put on and

another layer of the 1-2 inch x 6 inch material, taking care to break joints. The inside of the silo should be thoroughly painted with hot coal tar and the foundation securely imbedded in cement so as to exclude the air. A floor may be constructed if desirable, and a round, saddle or sloping roof utilized, as deemed advisable. When the silo is built in the barn a roof is unnecessary. It is advisable to build a dormer window in the roof where the round construction is followed which permits of filling right to the top. In spite of all that can be done the silage will settle to a considerable depth after it stands. On the side where the doors are to be placed the studding should be set double and at the desired distance to give the desired width, say 2 1-2 feet. The studs should be set between the two door spaces as if no doors were to be made, and the doors cut out later. When the second stud is placed in position, it is set out one inch so as to form a jamb for the door which is constructed of two layers of matched flooring held in position with lag screws. A chute for convenience in handling the food is often constructed over the doorways of the round silo, and the convenience afforded, cost considered, will justify its construction. The silo just described has no covering on the outside of the studding and this is certainly unnecessary in the South. The outside may be appropriately painted for its protection or it may be boarded up to improve the general appearance. When this is done openings should be left at the top and bottom on the outside to permit of the free circulation of the air between the silo walls. Wire netting should be placed over these openings to keep rats and mice out. Round silos are sometimes built by cutting in 2x4's between the uprights and running the lining up and down. A number of silos constructed after this method that have come under the writer's observation are lined with but a single layer of 1 inch by 3 inch flooring, and though in use for a number of years they are still eminently satisfactory. The lining of the round silo of large diameter is often made of one layer of matched flooring, though sometimes two layers are used with tar paper between, the second layer being run up and down.

The type of silo just described is probably the most efficient, so far as the preservation of silage is concerned, that can be utilized at a moderate cost, though many who have had experience with it do not regard it with greater favor than the cheaper stave silo and are opposed to the use of building paper which adds considerably to the cost.

ANDREW M. SOULE.

Dean and Director.

Celery seed should be sowed for plants to set out in July or August. Select a piece of rich moist land and work it fine. Sow the seed thinly, rake in and water and then cover with mats or old bags to keep it moist. The seed germinates slowly. Keep a watch on the bed and when it is seen that the seed is sprouting raise the mats or bagging on sticks to give room for the plants to grow, gradually removing it altogether. When the plants are large enough to handle, they should be pricked off in a bed of rich soil in rows 3 inches apart and 2 or three inches apart to grow into stocky plants. Keep the bed moist and if the plants become too spindly in growth clip off part of the tops. This will encourage growth of new leaves.

In reply to your favor, beg to say, that my time is so fully occupied, that I pay little or no attention to the fruit crops now, with the exception of Grapes. The prospects for Grapes are good, fruit has set well, and no signs of rot as yet. Still late frosts have done a good deal of damage in low localities, whilst in higher localities, no damage was done. Grape vineyards of one to three years old have suffered more than older vines. Several new vineyards have been planted, and careful Grape growers realize big profits from their vineyards. Grapes are the most certain and profitable grown in Virginia, as shown by my experience during a period of 36 years, within which time there was never a complete failure in any year.

ADOLPH RUSSOW.

Albemarle County, Va.

PARIS GREEN.

Poison for Chewing Insects and Worms.

Paris Green	1 pound
Water.....	100 to 200 gallons

When this mixture is used by itself add one pound of quick lime to prevent it injuring the foliage. See under Bordeaux mixture.

Paris Green is sometimes mixed with flour and dusted over the plants when dew is on, in proportion of one pound of poison to fifty pounds of flour, or fresh slaked Lime. Green Arsenoid and Lead Arsenate are used in same way.

Trucking, Garden and Orchard.

WORK FOR THE MONTH.

Successional crops of sweet corn, pole beans, lima beans and navy beans should be planted at intervals of a week or ten days so as to keep up a full supply until frost. Blackeye peas may also be yet planted. Cucumbers for pickles not already planted should be got into the ground at once. The earlier sown plants should be thinned out and be cultivated to encourage growth. Sweet potato plants may yet be set out and cuttings from the plants already growing freely should be taken and be set out to make seed for next year's plants. These cuttings make better seed potatoes than those raised from sprouts and are more likely to be free from the black rot fungus. The ends of the vines are used for this purpose. Take off the ends of the vines with three or four leaves and bury all in the land except the top of the vine with two leaves. If the ground is kept moist these will soon strike root.

Irish potatoes should be set out this month for the crop for winter use. The sets should have been kept in cold storage up to this time and will need to be spread out for a few days in a shady warm place to encourage sprouting before being put in the ground. The rows should be plowed out deep and the fertilizer be mixed in the soil in the bottom of the rows and the sets be planted and only be lightly covered with soil. After they have commenced to grow the soil should be worked down into the rows until a level surface is obtained and the cultivation should then be kept level.

The second crop of Irish potatoes should be planted this month. This crop is raised mainly for seed for the early potatoes so largely grown in Tidewater, Va., and Eastern North Carolina. They give better returns than Northern raised potatoes. The seed is selected when digging this first early crop. The medium sized potatoes, say about the size of an egg should be used. These should be planted whole. Before planting the seed should be spread out in a shady moist place to green and commence to sprout. A little moist rich soil should be thrown amongst them, not sufficient to cover them but merely to pack around them. The rows should be plowed out deep and the fertilizer be mixed in the soil in the bottom of the rows. Use a complete fertilizer with a high

percentage of potash. Such a fertilizer can be made up of 300 pounds of nitrate of soda, 600 pounds of rich scrap, 800 pounds of acid phosphate and 300 pounds of muriate of potash to make a ton. Use from 1,000 pounds to the acre. Don't plant any sets that are not sprouted. Those sprouted should be just lightly covered with soil and as they commence to grow the soil should be worked to them until the row is filled and the cultivation should then be kept level. This crop should be dug just before frost cuts the vines. There is always a good demand for the seed for the early crop. They may be kept until wanted either in kilns made on dry ground and well covered with straw and soil or in a frost proof cellar, covered with straw. Do not store too many in one kiln or heap or they may heat and spoil. 50 bushels is sufficient for a kiln or heap.

Celery plants should be set out from the seed bed to grow on for planting in the rows next month. Prick them out about four inches apart in good rich moist soil and keep moist and free from weeds. If the plants are sprindling, cut off part of the tops of the leaves. The land in which the celery is to grow to maturity should be got ready. This should be moist, rich land, be deeply and finely worked, and have a heavy dressing of well rotted farm yard manure applied broadcast if the plants are to be set out all over the land or in the rows if to be grown in rows which is the best way for all except the self blanching varieties. We prefer to grow the celery in wide rows holding four plants in width. The plants should be set out about 6 or 8 inches apart in the rows. The advantage of growing in these wide rows is that the plants are more easily and quickly earthed up to blanch than narrow rows. Do not make the rows too close as much earth will be needed to earth up each row and this must be got from between the rows. If you have not sufficient farmyard manure to make rows rich, a fertilizer made up of 300 pounds of nitrate of soda, 800 pounds of fish scrap, 600 pounds of acid phosphate and 300 pounds of muriate of potash to make a ton may be used at the rate of 500 to 1,000 pounds to the acre.

Cabbage and Broccoli seed for the late fall crop may be sown towards the end of the month. The secret of raising these crops in the South is not to sow the seed too early. When sown early the young plants

get eaten up by the bugs and caterpillars. Sow on rich ground in a moist shady situation just early enough to have plants ready to set out in September, and then push the plants into rapid growth and keep them growing quickly until matured.

As crops are removed, clean all trash and weeds and burn the same so as to destroy all weed seeds and fungous spores, plow the land and seed with crimson clover and wheat, **oats and rye to conserve fertility**.

Keep all flower beds clean of weeds and trash of all kinds and worked loose with the hoe and rake and have the lawn mowed regularly.

PEACH YELLOWS.

Editor Southern Planter:

No one has yet discovered the specific cause or cure for this disease. It is well known, however, that it spreads with certainty and is quite sure to destroy the trees it attacks. In some sections of the country yellows has become very prevalent, and it may even discourage peach growing until methods of control become well understood.

The fruit usually ripens prematurely on trees attacked by yellows. The peaches on one or more limbs may ripen while those on the rest of the tree are still perfectly green, yet in other cases the difference may not be so marked. Such fruit is likely to have rays of discoloration extending from the pit outward and is often insipid or even bitter to the taste. A well defined case usually shows a bushy growth of slender, wiry twigs at the base of the limbs, but often these slender twigs occur at the ends of the limbs, and they often form late in the season after other growth has ceased. The leaves on these abnormal twigs are usually much smaller and more pointed than healthy leaves. The tree is well on the decline at this stage.

At present no real remedy is known when once a tree has been attacked by yellows, but the disease can be controlled readily by destroying the trees as soon as they show the first symptoms. We may call this a drastic procedure, but it has been quite well demonstrated that it is effective in as much as the disease does not spread to any extent if this measure is followed up carefully. Dig the trees up by the roots, pile them in heaps and burn them; or chop them off, leaving the stubs by which these may be pulled out at the earliest convenient time.

Do not confuse this disease with yellow leaves and the general decline of peach orchards. Trees badly

injured by borers or in bad condition from other causes may ripen their fruit prematurely (trees in this condition are worthless), but will usually be in about the same condition over the entire tree.

J. L. PHILLIPS,
Blackburg, Va. State Entomologist.

FRUIT PROSPECT IN VIRGINIA.

In response to our enquiries we have the following reports as to the prospects for fruit in this State.

In reply to your inquiry as to the present conditions and prospects for a fruit crop, will state that peaches had reached the size of very small marbles when the severe cold weather occurred in May and were not injured to any great extent. They are growing nicely and the prospects are that the June drop will not be over large, hence a fairly good crop is likely to be realized in the fruit-growing sections of the State.

A large crop of apples was harvested last year, yet I find a number of orchards give promise of a fair crop this year, mainly in locations where only a small crop was realized last season. A considerable drop has occurred in some orchards already. It is too early however, to speculate as to whether the crop will be larger than usual for the off year.

J. L. PHILLIPS,
Blacksburg, Va. State Entomologist.

In reply to your letter asking me to send a report of the prospects of the different fruit crops in this section. Strawberries and cherries are just over and were short crops. Plums, the next to ripen, are a very full crop of Japan varieties, noticeably "Red June" and "Abundance." The American varieties, such as Wild Goose &c., below the average. All summer peaches promise a heavy crop up to, and including "Elbertas." But the late peaches, "White Heaths," "Bilyon's Comet," &c., are scattering. Apples vary considerably. There is much blight on all varieties except the "Winesap," and I believe Summer and all early varieties will be very short, some Pippins are promising good crops, and Winesaps have a good many. I should say judging from my own orchard, and from what I hear, there may be 35 per cent. of a crop of these two varieties, and little of any others. York Imperials here badly blighted and very short crop. Damsons show a good crop.

WALTER WHATELY.
Albemarle County, Va.

In reply to your inquiry, the prospect for a good crop of apples was very promising to the 23rd of April, when we had several days of cold wind, which struck the apple bloom at a very tender and crucial period, and it was soon evident that the crop had been quite seriously impaired. I do not think the frost in May injured the fruit in this section as it was older and more able to stand the cold; this has been quite an unusual season. There is about three-fourths of a crop of cherries, light crop of peaches, three-fourths of a crop of grapes, two-fifths of a crop of plums, about one-sixth to one-eighth of a crop of apples. The apples left are of fine size, but many have been injured by insects. Very few parties are spraying as the crop is not sufficient to justify it.

JAMES DICKIE.

Nelson County, Va.

Replying to inquiry will say that I do not think we will have more than about 25 to 30 per cent. of a crop of Winesap apples. No York Imperials. 25 per cent. of a crop of Albemarle Pippins, and a very small percentage of Summer apples. We have a pretty fair crop of Elberta, Stump, Old Mixon and August varieties of peaches, but our crop of October peaches will be very light—possibly 15 to 20 per cent. of a crop. I notice a full crop of Albemarle Pippins on trees that did not bear last year, but the percentage is small when we consider the average of the large orchards. What apples we have are looking well at present, and we should ship several thousand barrels of nice fruit from this point next fall. Apple trees are showing considerable blight at present, our trees are making good growth, owing to fine season, plenty of rain, &c.

C. L. WAYLAND.

Albemarle County, Va.

I am very sorry to say that the fruit crop in this section is almost an entire failure. I doubt that it will be as much as 10 per cent. of a crop.

JOHN R. GUERRANT.

Franklin County, Va.

In answer to your letter of inquiry as to the fruit prospects in this (Blue Ridge) section, will say, that we have the nearest failure of an apple crop that there has ever been here for many years. Last year we had an enormous crop of apples, the orchards were bending everywhere, and for that reason there was but little apple bloom this spring. On the plateau of the Ridge, embracing Floyd and Carroll Counties, there was a failure of the apple crop last

year as well as this, caused by the killing of the apples in the bloom by frost.

We have a fairly good Peach crop, but our people have not begun to plant this fruit so extensively as the apple, although it does equally as well.

Grapes are almost a total failure, having been killed by the frost in May. The Cherry and other small fruit crops are fairly good.

GEO. W. VIA.

Patrick County, Va.

Since receiving yours of the 8th inst. I have gone over a portion of the largest Apple orchards in this County and find that at least the average will be 40 per cent. of a crop, and the peach crop will be about the same. The June drop is now on and is quite heavy in many orchards, but I am satisfied what apples remain on the trees will be of fine quality. Many of the young orchards that failed last season will come in bearing this. Outlook for other stone fruits good. Berries will be a nice crop.

DAVID O'RORK.

Augusta County, Va.

The Apple crop in Montgomery County will be extremely light this year. This is largely due to over bearing last year and injury done to trees by hail storms. Late frosts did some damage also. Pears, peaches, plums and grapes were seriously damaged by late frosts, and I doubt if the crops of these fruits will reach an average of ten per cent. of a full crop. The wild blackberry and dewberry promise a good crop which will be quite an item for family consumption.

R. H. PRICE.

Montgomery County, Va.

Yours of the 7th to hand, in reply will say, We have a good crop of cherries and plums, few peaches and grapes. Winesap apples very light and no Albemarle Pippins.

WITHERS MASSIE.

Nelson County, Va.

The fruit crop generally is a failure in this section. There were very few cherries, a moderate crop of strawberries.

The apple crop will be from 5 to 10 per cent. of a full crop, principally Winesaps, as there are practically no pippins.

Plums are a failure and a very scant supply of pears.

Grapes promise a good crop. Peaches a fair crop. This is our off year and the failure in apples was not unexpected.

WM. H. BOAZ.

Albemarle County, Va.

Live Stock and Dairy.



Famous Hereford Bull Acrobat and Cows on Tuleyries Farm, Clark County, Virginia.

HEREFORDS IN VIRGINIA.

Mr. Graham F. Blandy the owner of the Tuleyries Farm, in Clarke County, Va., has got together a fine herd of Herefords, some 80 in number. These cattle were mostly purchased from the celebrated herds of C. S. Clapp, Esq., Rosemont Farm, and the Hon. W. G. Conrad, Montana Hall, Clarke County. The celebrated bull Acrobat is at the head of the herd, with Christmas Beau Donald (Sire Beau Donald) as a good second. W. G. Blandy has ten heifers by Acrobat out of such noted cows as Benison, Dimple, Georgina, Belle Donald, Castalia Nymph 7th, Castalia Nymph 8th, Lorrette and others equally as good. A heifer by this noted bull sold recently for \$3,700. The cattle are all doing well and make a beautiful picture grazing on this fine Shenandoah Valley farm, where blue grass as fine as found in Kentucky grows spontaneously. As a beef breed the Herefords have made a great reputation and they do well in the South on land not rich enough to carry Shorthorns.

JERSEYS IN VIRGINIA.

We notice that Bowmont Farms, Salem, Va., was again a large buyer at Messrs. Cooper & Sons annual sale. They purchased 10 head at prices running from \$1,700, given for Eminent's Mona, a cow 4 years old, down to \$140, given for Tom Scott of St. Peter, a bull calf 4 months old. The total cost of the 10 head

purchased was \$5,290. These animals added to the fine herd already at Bowmont Farms makes an aggregation of Jersey cattle on one farm of which the State may be proud and which will carry the reputation of the owners as breeders of fine Jersey stock all over the country.

ANOTHER VIRGINIA JERSEY HERD,

Mr. A. S. Lewis of Fredericksburg, Va., was one of the largest buyers of Jerseys at the recent sale of Hood Farm Stock. Amongst the animals bought was Figgis, a grand daughter of Grand Champion Figgis, for which he gave \$475. The Hood Farm Jerseys are a celebrated herd built up on the best foundation stock and which have had the best of care and close attention to the lines of breeding for results. Some of the greatest producing cows in the country are in the herd and we do not doubt but that Mr. Lewis will on such a foundation be able to make a reputation with his herd.

VIRGINIA HOLSTEINS.

In our last issue in an article on Holstein Cattle we incidentally referred to the herd of Dr. S. A. Robinson, of Covesville, Va., as containing some of the finest animals of that breed to be found in the country. Since writing that article, we are in receipt of a copy of the "Holstein Freisian World"

in which we find the following reference to the herd. "Dr. Robinson has collected some or the finest cattle ever brought together for foundation stock. The doctor's aim is to build up a herd that will not only lead in the South, but that in breeding, individuality and producing ability will take rank among the greatest in America. Dr. Robinson has established a high standard of excellence in the building up and maintenance of his herd. It is doubtful whether another aggregation of Holsteins could be found representing as high an average of quality as those now comprising Hygeia herd. Unique in name, this herd is destined to occupy an original place in the history of the herd, because the reputation of Hygeia will be associated with what is best and most wholesome in milk production and will also stand for the accomplishment of a great work in bringing the Holstein breed prominently before the class of people that can do most for its advancement."

THE PREPARATION OF CREAM FOR MARKET.

Editor Southern Planter:

In preparing cream for market the milk should be skimmed as soon as possible after it has been taken from the cow. A centrifugal cream separator should be used. There are a number of different kinds made, any one of which will accomplish the desired end. With the cream separator, the cream can be taken from the milk in a very short time. What is most important, probably, is to have the cream of a desired quality after it is skimmed, this is where the average cream producer fails. There is nothing accomplished by leaving the cream of a better quality than agreed upon one day, if the next day the quality drops down to what has been contracted for, in other words, in order to be satisfactory, the quality of the cream must be maintained somewhere near one standard. In justice to the buyer it must not be of a less per cent. of fat than agreed upon, and in justice to the seller it should not be of a higher per cent. of fat than agreed upon.

The simplest way, probably, to maintain the quality of the cream would be to test a sample of the milk from each milking, this sample to be taken so as to represent the milk from the entire milking. One way to take the sample so as to have it representative of the entire milk would be to distribute the milk in the cans so that there would be the same amount of milk in each can, then take from each can, say one half a pint of milk after thoroughly mixing it. This can

be done either by stirring or pouring from one can to another. The sample which has been thus taken must be tested for butter fat. A knowledge of the manipulation of the Babcock test is assumed, and no explanation of same will be entered into. The dairyman who attempts to make cream for market and who has not a knowledge of the Babcock test is at a great disadvantage.

After a determination of the per cent. of butter fat has been made and the milk has been weighed, then the pounds of butter fat contained in the milk can be estimated. Assuming that the butter fat contained in the milk is all carried into the cream, and practically all is carried into the cream in the case of the cream separator, then the estimation is to be made of how many pounds of cream there should be carrying the number of pounds of butter fat to be of the per cent. of butter fat wanted.

For instance, suppose it is found that the milk from a certain milking weighs 300 pounds, and the sample taken from this milk tests 4 per cent. fat, then 300 pounds of milk carries 12 pounds fat. After separation the cream is weighed and suppose this is found to be 40 pounds, now suppose this cream is wanted to be 20 per cent. fat, there will have to be 60 pounds of cream, 20 per cent. fat to carry 12 pounds of fat, then skim milk is added to the cream until the amount is raised to 60 pounds.

We then have 60 pounds of cream carrying 12 pounds of fat which must be 20 per cent. fat, and is approximately correct, no more and no less. If each milking is handled this way and the weighing and testing is carefully done, the quality of the cream will be maintained and uniform satisfaction will be given so far as maintaining a uniform per cent. of butter fat is concerned. As soon as the cream has been taken, and the amount of skim milk added to make it of the desired per cent. of fat, then the cream should be cooled to as low a temperature as possible. If ice is used for this purpose then with a champion milk cooler using ice inside a temperature can be reached by repeated cooling of near 35° F. If, however, no ice is used, then spring or well water must be used in connection with a cooler. The temperature of a great many springs and wells will be found to be near 50° F. to 55° F. If no cooler is used then a very simple way to reduce the temperature of the cream to near the temperature of the spring water is to put about one-half an inch of cream in an ordinary dish pan, and place the pan on the spring water and by gently stirring with a spoon the temperature of the cream can be reduced to near what the tem-

perature of the spring water is in a short time. By repeating this the temperature of the entire cream can be brought down to approximately that of the water. After this temperature is reached, it is desirable to maintain it if the cream is to be held. In the case of reducing with ice the cream if near 35° F. can be held several days in a perfectly sweet condition provided this temperature be maintained, and this can be done by packing in ice in a tub or barrel which has been sufficiently insulated, so as to prevent too much waste of ice from heat from the outside.

Cream prepared for shipment, when cooled in the spring or well water cannot be held and must be shipped to market at least once daily. The cans should be protected in shipment with covers or jackets, these jackets are about one-inch thick and made out of felt and cover the cans entirely excepting the bottoms, this protection prevents the cold from passing out so rapidly and when shipments are made daily cream can be put into market in prime condition.

It has been assumed that proper means of preserving cleanliness have been observed and it is probably well to say something along this line.

Proper cleanliness can only be brought about by using some fat solvent and afterwards steam for sterilization.

All buckets, cans and other utensils used should be first rinsed with tepid water so as to remove as far as possible in this way all milk and grease. Next the water in which the cans, etc., are washed should have some fat solvent dissolved therein, sal soda is good, and such an amount should be used as to remove all grease from the cans, buckets, etc. Experience will show about how much sal soda to use in the water which should be as hot as can be stood by the person washing. The heat is very necessary for the proper action of the sal soda, or in fact any fat solvent. After thoroughly washing in this way the cans, etc., should be placed over a steam jet and steam should be allowed to flow slowly into the can and until the can has been heated to a high degree of heat for several minutes, this is to destroy all germs which may not have been removed by the washing, and in this way we produce a sterile or clean condition in the vessel so treated. Where steam cannot be had scalding will accomplish a good deal provided the vessels are allowed to remain in boiling water entirely covered for several minutes, to simply pour boiling water over a can, or a small amount into a can accomplishes very little.

W. D. SAUNDERS,
Dairyman.

Virginia Experiment Station.

RINGWORM (BALD SCAB).

Editor Southern Planter:

This parasitic affection of the skin, though seldom reaching the proportion of an epidemic is far from rare in Virginia. Cattle are most readily affected, both older animals and especially young ones and sucking calves; after these come dogs. Horses, goats and cats suffer more rarely; pigs and sheep more rarely than any.

The disease is readily transmissible to man through contact, and occurs most frequently in stable attendants, through milking and cleaning the animals or rubbing them with ointment or in skinning after slaughter. Infected dogs that are fondled are especially liable to transmit the disease; pet cats which have eaten or been in contact with infected mice transmit the disease readily to children, and in this way the children frequently spread the disease throughout a neighborhood by attending public schools. Infected bulls may transmit the affection to a whole herd. It is easily spread during pasturage by infected animals rubbing against healthy ones to relieve the itchiness of the earlier and later stages of the infection.

Causes.

The disease is due to the growth of a vegetable germ on the skins of animals which are in a receptive condition. The parasite, thereafter develops in the hairs, their roots and the epidermis (outer covering of the skin). Its development and spread is especially favored by overcrowding in dark, damp and otherwise unsanitary stables, while its spread may be aided in pastures through direct contact in rubbing; though at this season it may subside or disappear through improved sanitation. The common use of blankets, grooming utensils &c., are especially favorable to its onward progress, above all the neglect to separate healthy stock from affected animals and man, and the places they have occupied.

Symptoms.

In describing the symptoms of ringworm, a uniform description fitting all cases cannot be given. The symptoms varying somewhat in the different breeds of animals, even on the same animal, they will vary somewhat with the position and age of the eruption, and also to its having been further intensified by rubbing or gnawing. In general, the outstanding characteristics of the eruption are as follows:

In cattle: In the commencement clearly defined round places (small at first), either hairless or studded with broken hairs are noticed about the head, neck and shoulders. The patches are mostly

scattered or may run together and form larger ones, always spreading outward forming larger and larger circles, occasionally (though rarely) invading the entire body causing complete nakedness. Upon these denuded spots scales form on the epidermis of an ashy-grey color, the skin now loses its flexible, soft feel and becomes hard and leathery, in case infection at any one point has been excessive the skin may become so altered in its character as to crack open forming open sores in which puss forms. The eruption usually lasts from six to twelve weeks, but may through fresh infection continue as many months. If the scurf is rubbed off, the parts beneath will be found to be red and swollen and bleed readily; some itchiness may be present at first, but is not usually well marked.

Several animals are usually affected in the same herd, and not unfrequently the attendants contract it.

In the dog the usual seat of attack is about the head (eyelids, lips, ears), and extremities, and may invade the whole body, while in the horse the most favored location is on the seat of the saddle, on the croup and flank, and also about the head. In the sheep it prefers to attack the neck, chest, shoulders and back, where the wool will be felted or matted.

Prevention.

This is most easily secured by an arbitrary separation of the healthy from the diseased, and by abandoning all infected sheds, stables or stalls until they have been subjected to thorough cleansing and disinfecting. (Spraying with fresh lime and carbolic solution). By boiling or disinfecting all clothing and utensils in common use, and by the most rigid precaution upon the part of the attendants, who must avoid handling diseased and afterwards healthy animals without disinfecting the hands.

Treatment.

The purely local nature of the disease demands only local treatment, and offers no serious difficulties when thoroughly applied. The animal should be at once secured, and all the scurf and scales removed from the circular patches, this is best accomplished by the free use of soap (preferably soft), warm water and brush. Before this is done parasecticide agents are of no avail as they must reach the germs before they can effect their destruction. From the list of parasecticides the writer has had success in the order named: Tincture Iodine, creoline and Olive oil, 1-4. Sulphur and carbolic ointment (carbolic acid 1 part, sulphur 10 parts, lard 40 parts), or Tincture of iodine carbolic acid and gum camphor in equal parts.

Any of the above are excellent, but to be effective must be thoroughly applied, in fact the degree of thoroughness exercised in applying remedies marks the duration of the disease.

JNO. SPENCER,
Veterinarian.

Agri. Exp. Station, Blacksburg, Va.

DUROC HOGS AND THE SOUTH.

Editor Southern Planter:

Your correspondent, Mr. Walter M. Carroll has fallen into the mistake generally made by being an enthusiast, he has written a most glowing account of his favorite pig, the Duroc Jersey. If we could but credit even half of what is written we should have no other alternative than to believe that perfection in the hog was at last discovered. Not content with laudation of the red hog, he proceeded to decry other folk's fancies. This is mean and casts doubt on one's bona fides. We old stagers have seen the marvellous prices recorded and all the ordinary attempts made to influence breeders look on unmoved, not so when a "red" man in puffing his colored hogs declares that "white hogs are very subject to mange. The skin gets scurfy, the hair full of dandruff, which at once gathers the dirt and a mangy condition follows." Let me meet Mr. Carroll on this with a flat denial or rather let me write that I have had to do with white pigs half a century and have yet to prove his extraordinary statements to be correct.

Let me let in a little truth on these wonderful red hogs; at the Ontario College, Canada, six experiments were recently made with pigs of six different breeds. The Berkshires and the large Yorkshires easily beat the Duroc Jerseys for best returns from given quantities of food whilst as to the quality of pork no doubt the returns would have proved that the Tamworth also would beat the Duroc Jersey. The Chester White and the Poland China came out very badly in all returns.

Permit me to conclude with a little advice to Mr. Carroll, who is evidently meant to succeed. "Praise your own stock with judgment, but don't blackguard your opponent's favorites!!!"

SANDERS SPENCER.

Holywell MaMnor, St. Ives, Hunts, Eng.

TREATMENT OF STOMACH WORMS OF SHEEP.

It is during the summer months that losses from the twisted stomach worm of sheep occur, and flock owners should early endeavor to prevent their flocks

from becoming diseased. Healthy adult animals seldom become affected with this disease, and the greater part of the loss occurs among young and weak animals. However, if the conditions are favorable for the sheep to become infested with this parasite, the death rate among the mature animals is also heavy.

This disease is not as difficult to treat successfully as is generally believed. The preventive treatment is very important. It is based on keeping the sheep in a healthy, vigorous condition, and among surroundings unfavorable for the entrance of the eggs or larvæ of the parasite into the digestive tract with the feed. Drinking surface water and permanent pastures, especially if pastured close, are favorable for the production of the disease. The preventive measures that are most practical to use under the local conditions can be judged best by the person in charge of the flock, and the success of this part of the treatment will depend on the precautions that he deems necessary and the thoroughness with which they are carried out.

Sheep raisers, who have lost sheep from this cause in former years, should not wait until the disease develops in the flock before using medicinal treatment. The following mixture is recommended by Dr. Law, and has given excellent results: Arsenious acid, one drachm; sulphate of iron, five drachms; powdered nux vomica, two drachms; powdered areca, two ounces; common salt, four ounces. This mixture is sufficient for thirty sheep and can be fed with ground feed once or twice a week. In case the symptoms are already manifested, it should be fed once a day for two or three weeks. In giving this remedy in the feed, the necessary precautions should be taken, or each animal may not get the proper dose. Turpentine is largely used in the treatment of stomach worms. It is administered as an emulsion with milk (one part turpentine to sixteen parts of milk). The emulsion should be well shaken before drenching the animal. The dose is two ounces for a lamb and four ounces for an adult, and, to be effective, should be repeated daily for two or three days.

R. A. CRAIG, Veterinarian.

Purdue Experiment Station.

CATTLE QUARANTINE AND THE CATTLE TICK.

Editor Southern Planter:

It is a well established scientific fact that the tick conveys the Texas fever from an infected animal to one not infected. I am somewhat familiar with the successful experiments that proved this fact beyond

question. Hence, the tick is primarily the cause of all our cattle quarantine regulations. The tick prevents cattle from being shipped out below the quarantine line.

the means of conveying the deadly germ of Texas fever to a large number of fine blooded cattle brought into Texas and other Southern State for improving the native cattle. This condition of affairs has greatly retarded the improvement of herds of cattle in the Southern States.

I have known many fine blooded animals to be inoculated (vaccinated) against Texas fever. The mortality is usually about ten per cent. This operation consists in taking a small quantity of blood from a native tick infested animal which it is desired to inoculate. A mild case of Texas fever will follow which usually does not seriously affect the animal, but renders it immune against another attack of the disease.

But this inoculation does not destroy the tick as a parasite. It continues to subject other cattle to constant danger and remains still the primary cause of our quarantine lines. It is far better and much more practical to destroy the cattle tick by the simple method of starvation. If cattle are kept off infested pastures about twelve months the ticks will starve and die out. Sheep and hogs may run on the pastures without being injured by the cattle tick.

This method of eradicating the cattle tick should be taken up in a systematic way by each tick infested county. The Board of Supervisors should take the matter up with our State Veterinarian, Dr. J. G. Ferneyhough, of Blacksburg, who is State Veterinarian and has this matter in charge. A number of counties have taken this matter up and are now about ready to be placed above the quarantine line. I would like to see more counties take up this work and banish the cattle tick from the State of Virginia entirely. Dr. Ferneyhough is willing to cooperate with the counties along this line according to the State law upon the subject, and while good work has already been done we want to see it broadened and the cattle tick utterly starved out in Virginia. We have room for better animals than the tick. This parasite should not any longer be allowed to imperil the cattle industry in our tick infested counties. Science has come to our relief in finding a practical way to get rid of the tick and offers a helping hand if we will only accept it.

R. H. PRICE.

Montgomery County, Va.

The Department of Agriculture has just issued a bulletin on this subject.—Ed.

The Poultry Yard.

THE AUSTRALIAN EGG LAYING CONTESTS.

The yearly egg laying contests closed in Australia, March 31st. The results show great improvement over former years. In 1902-3, two hundred and twenty-eight hens averaged 180 eggs each; in 1903-4, four hundred and twenty hens averaged 163 eggs each; last year six hundred hens averaged 152 eggs each, and in the contest just closed six hundred hens averaged 166 eggs each. These six hundred hens divided into classes by breeds show the following average in the Hawkesbury College Contest:

	EGGS PER HEN
12 Imperials	200
6 Black Hamburgs	197
12 Langshans	184
42 S. C. Brown Leghorns	179
12 Adalusians	179
12 Golden Wyandottes	178
12 R. C. White Leghorns	173
6 Faverolles	173
24 Buff Leghorns	171
18 R. C. Brown Leghorns	169
120 S. C. White Leghorns	167
120 Silver Wyandottes	165
114 Black Orpingtons	158
30 Buff Orpingtons	157
12 White Wyandottes	149
18 Minorcas	147
6 Anconas	132
6 O. E. Game	129

In this calculation no attention is given to the average of a fraction or part less than an egg. This is a remarkable showing. The lowest average, one hundred and twenty-nine eggs per hen, is the same as was gained from the New York State yearly contest of several years ago from a total of about two thousand hens.

In the Hawkesbury College contest, where one hundred pens were competing, six per pen, the first place was gained by White Leghorns, having a total of 1,411 eggs, or an average of 235 eggs per hen for the year; second, Silver Wyandottes, 1,303, or 217 per hen; third, Imperials, 1,251, or 208 per hen; fourth, White Leghorns, 1,247; fifth, Golden Wyandottes, 1,222.

In the Rockdale contest of fifty pens of six hens each, Black Orpingtons were first, with 1,461 eggs, or an average of 243 each; White Leghorns, 1,443,

or an average of 240 each; Minorcas third, 1,425, or an average of 237 each; Black Orpingtons fourth, 1,404; White Leghorns fifth, 1,380.

Below we give the total number of hens and the average number of eggs laid by each breed. In this the Minorcas have the lead, while in single pen competition they stood third. The lowest average in this is most remarkable, ninety-six Silver Wyandottes averaged 184 eggs each.

	EGGS PER HEN
6 Minorcas	237
6 Langshans	218
6 Black Hamburgs	216
6 Rose-Combed White Leghorns	207
12 S. C. Brown Leghorns	202
78 White Leghorns	201
78 Black Orpingtons	197
12 R. C. Brown Leghorns	185
96 Silver Wyandottes	184

In the Queensland contest Brown Leghorns were first, 1,341 eggs; second, Brown Leghorns, 1,268; third, White Leghorns, 1,261; fourth, White Leghorns, 1,249; fifth, Rose Comb Minorcas, 1,222. These are the three great contests of the year in Australia. There are three other contests for hens and one for ducks under way, all of which will be ended by the close of June.

In summing up these three great contests we find that the Black Orpington pen laid the most eggs in the lot, White Leghorns second. Tabulated the fifteen pens that won the five awards in each contest show as follows:

	EGGS.
6 Black Orpingtons	1,461
6 White Leghorns	1,443
6 Minorcas	1,425
6 White Leghorns	1,411
6 White Leghorns	1,404
6 White Leghorns	1,380
6 Brown Leghorns	1,341
6 Silver Wyandottes	1,303
6 Brown Leghorns	1,268
6 White Leghorns	1,261
6 Imperials	1,251
6 White Leghorns	1,249
6 White Leghorns	1,247
6 Rose Comb Minorcas	1,222
6 Golden Wyandottes	1,222

The lowest average of the fifteen pens was 204

eggs per hen: the highest 243. Average for 90 hens, 221 eggs each.

One must conclude that there is a fine lot of hens in Australia, and that the Government experts who have charge of the hens in the contest know how to handle them. Why it is that they can do so much better there than in this country we are at a loss to understand, unless the mild winters are in their favor. During June, July and August last year they had about sixty frosts, while in January the thermometer showed above the 112° mark.—*The Feathers.*

GAPES.

Both in and upon all warm blooded animals and birds numerous animal and vegetable parasites are to be found, the former usually in greater quantities. The disease known as favus, affecting the comb and wattles of poultry, is due to a vegetable parasite, really a minute fungus, which attacks both human beings and animals, and which can be transmitted from one to the other. The most important disease caused by internal animal parasites is gapes, which mostly affects birds from one to six months of age, although older birds are liable to it. The symptoms of this complaint are exceedingly simple to detect; the bird is seen to stand extending its neck, frequently gaping or yawning, hence the name; it looks morish and listless, and the feathers lack their usual brilliant luster; in a bad case froth will be seen at the mouth. Gapes is due to the presence of worms in the throat of the bird (*syngamus trachealis*), familiar to gamekeepers under the name of the red or forked worm. If the trachea and bronchia of a bird suffering from this complaint be examined, from six to a dozen small red worms, possibly more, will be discerned. These are usually fork shaped, the straight ones being comparatively rare. The former are the copulating males and females; the latter are considerably larger than the males, the two being firmly fixed together, so much so that they cannot be separated without tearing the tissues. So soon as the female attains maturity and becomes full of eggs, she, together with the male, is expectorated by the bird. For a little while they lie about on the ground, but ultimately burst when the eggs—not more than 1-250th of an inch in length—are scattered over the ground or in the water. Each worm contains an enormous number of eggs, which hatch in damp earth or water into embryos in from one to six weeks, according to the temperature. As soon as the eggs and

embryos are swallowed by a bird they develop into adults, and are able to reproduce themselves in less than three weeks. While no second host is necessary, large numbers of the eggs and embryos are swallowed by earthworms, which in their turn are eaten by the fowls. It will at once be realized how very rapidly ground may become contaminated, even though the number of fowls suffering from this complaint is exceedingly small. In color the gape worm is red, and in length the female may reach 4-5 of an inch, while the male is rarely more than 1-5 of an inch. A certain amount of variation takes place, however, in the size, some females being no more than 1-4 of an inch. If the disease is not immediately attended to the worms increase with enormous rapidity, ultimately causing suffocation. The complaint is mostly confined to chickens and turkey poults, although older birds are sometimes attacked. A few years ago great mortality was occasioned in certain parts of the country through gapes, but thanks to the improved methods of poultry keeping and the greater attention paid to cleanliness, its ravages have not been so serious during the past few seasons.

Perhaps the point of most vital importance in trying to effect a speedy and permanent cure is to burn any birds that may die from this complaint. I have known cases in which a bird has died of gapes, and the body has merely been buried a foot or eighteen inches below the surface, with the result that the eggs have hatched, and the ground has become permeated with the eggs and embryos. Too much stress cannot be laid upon this point, and a bird that dies should be burnt without a moment's unnecessary delay. Another matter of importance is to isolate any bird that is detected in the act of gaping. The worms are frequently coughed up by an affected bird, causing the ailment to spread with alarming rapidity until the whole flock may be attacked. The worst outbreaks always occur on land that is overstocked, and as far as possible fresh ground should frequently be brought into play. It is unwise to use the same plot two consecutive years for rearing chickens, as in this case the risk of gapes and other diseases is so great. When fowls are confined in runs, it is a good plan to lightly dress the land with gas lime, or water with a 1 per cent. solution of sulphuric acid.

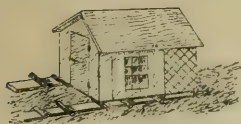
One of the oldest remedies for gapes, but at the same time one that is exceeding efficacious, is that of soaking the grain in urine before giving it to the birds. The ammonia escaping from the urine proves fatal to the worms and their embryos. A method which I have used with excellent results is that of dipping

a long flight feather in turpentine or eucalyptus oil, and inserting it down the throat of the bird, turning it round once or twice, then gradually withdrawing it. If carefully done several worms will be brought up each time on the feather. Another method that has been tried with beneficial results is placing a little salicylate of soda in the drinking water, in the proportion of three drachms to every quart of water. The addition of soda to the drinking water very effectually kills the ova and embryos. There are some very good powders on the market, which consist of powdered chalk, and which are called by different names. The birds are placed in an air tight box, and a little powder blown therein, causing many of the worms to be dislodged. It is claimed that tobacco smoke has a similar effect, but I have never personally tried it.

E. T. BROWN.

Farm Poultry.

MOVABLE POULTRY HOUSE.



My best all round poultry house is a movable one, and if I were to build more houses I should copy this one. It holds a dozen fowls.

It is 4x9x5 feet high in the middle. Three feet at one end is lattice or netting. Three feet from the end near the door is a partition, giving a little room 3x4 feet, which is for roosts. Nests are here also, fastened to the wall by a large wire nail and easily pulled down for cleaning or moving. The roosting room has a floor, the larger room has none. When moving to a fresh spot the fowls are shut into the roost room, or the house can be moved in the evening, a couple of boards and some small rollers being used. In winter the house is set on a little raised bed of gravel, is floored with litter and banked outside with leaves. In summer the door and windows are of netting, making a cool house.—I. A. L., Middlesex County, Ct.

DRY OR SOFT FEED.

The Maine Experiment Station, after conducting experiments in dry feeding, reports as follows:

"The number of hens lost during the winter has been less than ever before, even where they were kept in the same style of houses. We can ascribe this to no other cause than that the birds did not overload with food at any time. We have never had so many eggs laid during the winter months by a like number of hens. The average yield of the 550 hens during March was 20.4 eggs per bird. The whole number of eggs laid by them during the six months from Nov. 1 to April 30 inclusive was 42,126, an average of 76 eggs per bird. It must be kept in mind that these birds were not selected, but were the whole number of pullets reared last year."

Another point in favor of dry feeding is the great saving of time. Where the hoppers are made large enough, once a week will keep them filled. So in the case of the growing birds, which are presumably scattered about the fields in colony coops, the watering and moving of the coops would be the only daily work. In the winter, clover is placed in wire baskets where the fowl can reach it, instead of steaming it.

EDWARD K. PARKINSON,
Country Gentleman.

FINANCIAL RESULTS IN SOME OF THE AUSTRALIAN EGG LAYING CONTESTS.

On another page of this issue we give particulars of the eggs produced in the Australian Egg laying contests by the different breeds of fowls.

The following are the financial results attained in two of the contesting flocks.

The Hawkesbury College flock of 600 hens produced in the year 99,563 eggs or 8,296 dozen. The net value of the eggs was \$1,937.88, from which deduct the cost of feed \$770.62 and a surplus of \$1,157.54, remains or a profit of \$1.92 per hen per year.

The Rockdale flock of 300 hens laid 58,736 eggs, or 4,984 per month. The value of the eggs produced was \$1,173.84, from which a sum of \$100.90 has to be deducted for commission making the return \$1,072.99, and the net profit after deducting the cost of feed, \$632.56. This gives a profit per hen of \$2.10 per year.

The Horse.

NOTES.

The Virginia Circuit of horse shows is in full blast and from now on till October wanes those who fancy this sort of sport will be amply provided for. The Leesburg and Upperville shows have already taken place and were pronounced successes. As previously stated in these columns, Lynchburg has dropped out of the circuit, and the big amphitheatre there has been converted into a skating rink, so that the dates formerly assigned that association have been taken by Norfolk, which latter place now precedes instead of following Richmond as heretofore. The dates of the Richmond Horse Show and the Virginia State Fair Association are the same, viz.: October 8th-13th, and the two organizations are working in unison, which is fitting and seems likely to result in a grand success, thereby furnishing sport and pleasure galore for the many thousands that will gather at the "Capital of the Confederacy" during that week. The revised list of Horse Show dates for remainder of the season as follows:

Culpeper.....	July 4 and 5
Fredericksburg.....	July 11 and 12
Manassas.....	July 18 and 19
Orange.....	July 25 and 26
Charlottesville.....	Aug. 1 and 2
Front Royal.....	Aug. 2 and 3
Staunton.....	Aug. 7 to 9
Harrisonburg.....	Aug. 14 to 16
Berryville.....	Aug. 21 to 23
Warrenton.....	Aug. 29 and 30
Norfolk.....	Oct. 1 to 6
Richmond.....	Oct. 8 to 13

At thirteen years old, Sidney Prince, 2:21 1-4, the premier sire of Floyd Brothers, Bridgetown, Va., is making a showing unequalled by any trotting stallion of a like age in Virginia. He has ten standard performers now to his credit and a dozen or more of his get have speed enough to enter the list when given the opportunity. He has two new standard performers this season in Zack, 2:21 1-4, and Little Ned, 2:29 1-4, while the five year old bay mare Princino won two races at Baltimore and reduced her record from 2:26 1-4 to 2:17 1-4. Princino was recently purchased by J. A. Crabtree, of Boston, for \$11,250, and a like amount was realized for Samuel Prince, a three-year-old son. Little Rob, a five-year-old brother to the latter, was second in 2:12 1-2, and quite a stiff offer was refused for him. Samuel

Prince won the two-year-old trot at Tasley, Va., in 1905, and made a record of 2:56 over a muddy track, otherwise the time would have been much faster. Early this season he trotted a mile in 2:23 1-4 over the half mile track at Kellar, Va., in 2:23 1-4, of which the latter half was in 1:09 1-2, and the final quarter in 33 seconds. Considering age and opportunities the showing made by this Virginia bred three-year-old is certainly most creditable. The speed shown by the get of Sidney Prince has made him a very popular sire and thus far nearly one hundred mares have been bred to him, while others are waiting and he will be kept busy for months to come.

Carl Klocke, formerly of Pittsburg, Pa., but for several years past owner of Woodville Farm, a fine old homestead of several hundred acres, where he resides, near Crewe, Va., has purchased of W. J. Carter, the handsome bay mare, Sweet Lynne, 7, by General Johnson, 2:12 1-4, dam Sweetstakes, dam of Great Stakes, 2:20, by Sweepstakes. This mare was bred by Capt. John L. Roper, of Norfolk, Va. She is credited with a trial in 2:21 1-4 last season, and was placed in several races where the heats were trotted in 2:30 and better. In addition to being a fast roadster Sweet Lynne saddles nicely, too, and will be used for both purposes by Mr. Klocke.

With the Virginia State Fair on during the week of October 8th-13th, at Richmond, and the North Carolina State Fair coming off during the following one—October 16th-20th—at Raleigh, horsemen will be afforded an opportunity to pick ripe plums in the shape of good purse money, while liberal conditions will prevail, certainly an added attraction. The fair and race meeting of the Central Carolina Fair Association at Greensboro, has the same dates as Richmond, while the Mecklenburg Fair Association at Charlotte conflicts with Raleigh, but at that horses enough will be found for each of the meetings and another year these clashes should be avoided by timely consultation and arrangement of affairs.

A. B. Lewis, of the Lewisiana Farm, Fredericksburg, Va., owner of the trotting sire Supremacy, 2:29, son of Bell Boy, and some choice brood mares, has recently returned from the North and while away added to his collection of trotters, also the farm herd of Jersey cattle, by purchases of a number of richly bred animals.

BROAD ROCK.

THE HEAVY HORSE BUSINESS.

Editor Southern Planter:

Knowing several Importers of Stallions well, and a great number of them slightly, I think it would not be amiss to tell a few things that I know by experience and some facts that can be substantiated by the best men in the country.

The Importers all make "big money," and this is as it should be, as they take big risks, and as long as they bring good stallions here they add to the wealth of our country, but the temptation to make the most money out of their business has in the last ten years caused men to import the "culls" of France, England and Scotland, and sell them at enormous figures. When an Importer gets a first class animal he is kept at the barn until sold, and when the animal is not a first class one, he is railroaded around the country 'till some point is reached where a slick, smooth-tongued salesman can find a man of the same type who is willing for a price to help get up a club among his neighbors and buy these inferior horses at from 2 to 3 times their actual value.

Now, the worst feature of this "faking" business is in the fact that nine-tenths of these fellows try to make the ignorant or rather unsophisticated buyer believe that a native bred stallion is inferior to the Importer or Foreign bred animal—ninety per cent. of these importers do not breed or own a mare and therefore only handle the Foreign bred horse. Now let us look at the facts in the case, based on actual experience, in an unbiased and unprejudiced manner.

The soil, climate and general conditions for breeding and rearing horses here cannot be surpassed by England, Scotland or France. During a period of 17 years since I bought the first Percheron stallion I ever owned, although I had bred to several owned by others; I have owned two Imported Percheron mares, and three Percheron Stallions (imported). One cost at the importer's barn \$2,000 cash, another at the barn of the importer, \$2,250, and another \$2,000, bought at the importer's barns, and a son of Brilliant 1271 (755), these were all good horses, but not one got a stud colt that I cared to keep or use on my pure bred mares.

I have owned several big native bred stallions whose colts were the best I ever owned and sold at higher figures than those got by the imported horses, and now have a 2,200 pound stallion bred in the U. S., whose colts are far superior to any I ever saw, taking the general "run" of mares served by him. These native bred horses are acclimated and naturally get a larger per cent. of colts. I have raised better

mares than either of the imported mares that I once owned and my horses are improving every year and can find good enough home bred stallions to suit me, or any else that knows a draft horse when he sees one.

JOHN F. LEWIS.

Rockingham County, Va.

AMERICAN HORSE PRODUCTION.

The Hub, a vehicle paper at Boston, Mass., gives the following interesting statistics of horses.

Stupendous are the figures for the number of horses in the United States for the year ending June 30th, 1905.

Constant reference to the passing of the horse is ludicrous to anyone having any real information.

The actual figures show that there has been a steady increase in the production of horses and their market value since 1899—the first year the automobile appeared in actual use—as the following table

YEAR.	NUMBER.	VALUE.
1899.....	13,665,307	\$ 511,047,813
1900.....	13,537,524	603,696,442
1901.....	16,744,723	885,200,168
1902.....	16,531,224	968,935,178
1903.....	16,557,373	1,030,705,598
1904.....	16,736,059	1,136,940,298
1905.....	17,057,702	1,200,310,020

The number of horses and their value up to June 30th, 1905, were taken from the report of the Department of Agriculture at Washington.

THE MARKET FOR HORSES.

Price record for a load of drafters has again been broken in the Chicago market. Last week the Asher Horse and Mule Co., Pittsburg, took out a whole load of 20 head at a total cost of 7,050, or an average of \$352.50. The horses were fed and sold by Abe Klee & Son. They were of course a finished lot, several of them weighing a ton or more. This is the highest price ever paid for a load of draft horses in the West. Previous to last week the record was held by Meyerhoffer of Iowa, who sold 12 head for an average of \$350. Before that \$315 was the record, made by McGregor, another Hawkeye shipper and the \$300-mark has been topped on a few other occasions. Other notable averages made this year have been the \$288.37 of the Illinois Experiment Station, \$283 made by Newgass & Son, and others around the \$275 notch. Never was the demand for finished drafters so keen and never have prices been so high, a natural rider to which is that never have they been so scarce in relation to the requirements of the trade.—Breeder's Gazette.

Miscellaneous.

THE VIRGINIA STATE FARMERS' INSTITUTE.

We desire again to call the attention of the farmers of Virginia, to the State Farmers' Institute, to be held at Roanoke, July 10th, 11th and 12th, and to urgently beg of them so to arrange their work that they may be able to attend this meeting and make it the grandest gathering of the farmers of the State ever known. Last year some 500 of the best farmers of the State were in attendance, and the unanimous consensus of opinion was that the Institute accomplished a work which no other farmers gathering had ever done in bringing before the people the importance to the State of well directed scientific work for the advancement of agriculture. This influence was felt and acknowledged by the Legislature which gave more heed to the demands of the farmers for help in the work of educating farmers' sons and enabling the Experiment Station to do more effective work than any previous Legislature had ever done. This year as will be seen from the programme of the meeting herewith published there will be an array of speakers such as has never before been got together in this State to help and enlighten farmers in the problems affecting their calling. These men are leaders in their specialties and practical not theoretical farmers. Not to give these men your support by your presence and your attention will be to set yourselves down as unappreciative of efforts made to help you and reflecting seriously on the intelligence of the farmers of the State. The railroads have made most liberal terms to enable people from all sections to attend and the City of Roanoke can and will take care of those who attend on the most reasonable terms. The programme practically covers all subjects of interest to the most progressive farmers, and men who have made a life study of the several questions will be there to instruct and enlighten all who will attend. At similar gatherings in Tennessee, Maryland and North Carolina, the farmers attend in thousands, surely Virginia farmers will not be behind those States in showing their appreciation of the labors of those who have the work in charge. They do this work as a labor of love for the farmers and get no compensation whatever, except the thanks of those for whose benefit they work. It is surely as little as can be done to attend and help by your presence to let these men know that you appreciate their labors. Prof. Soule the Secretary of the Institute has given to it many laborious days and much hard thinking, and it behooves all

farmers of the State who appreciate the great work he is doing at the Experiment Station and the Agricultural College to let him see that you are not unmindful of his labors or indifferent to his success. One of the great features of the Institute will be the visit to the Experiment Station and Agricultural College, for which a special free train will be provided by the courtesy of the Norfolk and Western Railroad. There farmers will be able to see for themselves what is being done to help them in their calling, and to judge, not by what they hear, but by what they see and decide for themselves whether those in charge of the work are deserving of their confidence and support. In one day spent at Blacksburg, they can learn more than in weeks of study, as they can there see for themselves in actual operation all the various lines of work laid out for elucidating the complex problems of successful and profitable farming stock raising and management. They will be shown the 66 acres of ground on which hundreds of experiments in the raising of crops on different lines are being conducted. They can see the crops raised and the difference resulting from different systems of management in raising the same and can appreciate these differences a thousand times better than any description can convey them. In the barns they can see the different breeds of pure bred cattle, sheep and hogs and learn how to distinguish them and grasp the different points of excellence in each breed, and their fitness for different purposes and sections. They will also be able to see a milking machine in operation, and be able to judge how far this is going to help them in getting out of the difficulty of securing good reliable milkers. In the dairy they will see the different machines used in butter and cheese making in actual operation, and those interested in orchard and horticultural work can see the orchards and gardens and learn the results of the work done therein for increasing the products and combating the enemies of the trees and plants. The new Agricultural Hall and the various barns and other buildings will illustrate what is involved in a really scientific agricultural education and the need for liberal support from the State for these purposes. Above all they will have the opportunity of coming into close personal contact and acquaintance with Dr. McBryde, the President of the College, with Professor Soule the Director of the Experiment Station, and the Dean of the Agricultural Department of the

College, and with the other professors and assistants in charge of the different branches of work. This personal knowledge of these men and the work they have in hand will do more to give confidence to the farmers in the results of the work attempted or accomplished than any written reports can possibly do and will make men feel that they can with assurance of personal sympathy and help, ask these gentlemen to help them at any time when perplexed. Go to the Institute and realize that this is your College and your Experiment Station and that you are more interested in its success than any other people in the State. If what is being done commends itself to you, give those who are doing it your support and see that they do not ask the State for help in vain.

The following is the programme for the Institute.

PROGRAM STATE FARMERS' INSTITUTE.

Roanoke, July 10, 11 and 12.

Tuesday, July 10th—Morning Session.

9:30—Call to order by President J. Hoge Tyler.

Invocation by Dr. W. C. Campbell, Roanoke.

Address of Welcome, by Col. James P. Woods, Roanoke.

Response on behalf of the farmers of Virginia, by Hon. Carter Glass, Lynchburg.

President's Address, Ex-Governor J. Hoge Tyler.

9:30—Shorthorns as a Factor in our Cattle Industries, Hon. B. O. Cowan, Assistant Secretary, American Shorthorn Breeders' Association, Chicago, Ill.

Discussion.

10:30—Building up Virginia, Hon. L. E. Johnson, President, Norfolk & Western R. R., Roanoke; Hon. M. V. Richards, Land & Industrial Agents, Southern Railway, Washington, D. C.; Hon. J. W. White, Land and Industrial Agent, Seaboard Air Line, Portsmouth.

Discussion.

11:30—The Practical Management of Farm Poultry, Cal Huselman, Roxbury; James D. Mason, Gladys.

Discussion.

Afternoon Session.

1:30—Success with Alfalfa, Clover and Other Legumes, Dr. Meade Ferguson, Bacteriologist, Virginia Experiment Station, Blacksburg.

Discussion: S. C. Goggin, Rustburg; C. E. Fahrney, Timberville; H. B. Smith, Jr.,

tenance of Fertility, Prof. W. F. Massey, Editor, Practical Farmer, Philadelphia, Pa.

Discussion: Prof. J. S. Miller, Emory; T. O. Sandy, Burkeville; Dr. C. U. Gravatt, Port Royal.

11:30—Election of Officers and Vice-Presidents for the Congressional Districts.

Report of Secretary and Treasurer.

Afternoon Session.

1:30—Dairy Economics: Dairying as a Business, Prof. Ed. H. Webster, U. S. Department of Agriculture, Washington, D. C.; Hon. A. R. Scott, Member of State Board of Agriculture, 3rd Congressional District, Richmond; H. T. Pancoast, Purcellville.

Milk Selling, Wm. W. Jackson, Farmville.

Buying Feed Economically, J. W. Gregg, Purcellville.

Discussion.

2:30—Some Common Diseases of Live Stock, Dr. Geo. C. Faville, Norfolk:

Discussion: Dr. John Spencer, Veterinarian, Virginia Experiment Station, Blacksburg; Dr. W. G. Chrisman, Charlottesville.

Hanover.

2:30—Fruit Growing as a Business, Dr. John R. Guerrant, Calloway; Geo. E. Murrell, Fontella; Prof. H. L. Price, Horticulturist, Virginia Experiment Station, Blacksburg.

Discussion.

3:30—Management of Farmyard Manure, Prof. R. J. Davidson, Chemist, Virginia Experiment Station, Blacksburg.

Discussion.

4:30—The Improvement of Seed Corn, Hon. J. H. C. Beverley, Member of State Board of Agriculture, 1st Congressional District, Chance.

Discussion: Mr. P. O. Vanatter, in charge Field Experiments, Virginia Experiment Station, Blacksburg; Mr. A. O. Lee, Hickory; W. H. Turner, Afton.

5:00—The Practical Value of an Agricultural Education, F. S. Walker, Orange; J. H. Squires, Blacksburg; W. D. Dunn, Rapidan.

Discussion.

Night Session.

7:30—The Improvement of the Rural Schools, Hon. J. D. Eggleston, Superintendent of Public

Instruction, Richmond.

8:30—Recent Investigations in Stock Feeding, illustrated, Prof. Andrew M. Soule, Dean and Director, Virginia Experiment Station, Blacksburg.

Discussion, W. C. Hoover, Timberville.

Wednesday, July 11—Morning Session.

8:30—Relation of Fertilizers to the Production of Tobacco, Mr. E. H. Mathewson, West Appomattox.

The Growing and Handling of Tobacco in its Various Stages, Hon. J. M. Barker, Member State Board of Agriculture, 5th Congressional District, Axton.

Discussion: Dr. T. W. Evans, Concord Depot.

9:30—The Feeding and Management of Lambs, Hon. Joseph E. Wing, Breeders' Gazette, Chicago.

Discussion.

10:30—The Improvement of the Soil and the Main-

3:30—Profitable Prices for Farm Crops, Hon. C. Hayes Taylor, Indianapolis, Ind.

Discussion: C. N. Stacy, Amelia; Hon. A. F. Thomas, Lynchburg; R. G. Koerner, Staunton.

Night Session.

7:30—The Relation of the Press to Agriculture, Hon. A. B. Williams, Editor, News-Leader, Richmond; Hon. J. F. Jackson, Editor Southern Planter, Richmond; Hon. T. D. Harmon, Editor, National Stockman & Farmer, Pittsburg, Pa.

8:30—What the Country Offers a Young Man, Hon. Jos. E. Wing.

Thursday, July 12—Excursion to College or Agriculture and Experiment Station.

Arrangements have been made for a special train to convey all bona fide members of the Institute and farmers in attendance free of cost to Blacksburg on a tour of inspection of the College of Agriculture and Experiment Station located at that point. A special train will leave Roanoke at seven o'clock in the morning, reaching Blacksburg about ten o'clock. An address of welcome will be delivered to the delegates by President J. M. McBryde on behalf of the College. Lunch will then be served in the College Dining Hall after which the delegates will be divided into groups and escorted through the buildings and over the grounds.

Some of the Points of Interest to Visitors are as follows:

1. The experimental field containing 66 acres of ground.
2. The College Barns of which there are five.
3. The milking machine at work in the Dairy barn.
4. The herds and flocks including 6 breeds of cattle, one of sheep and one of swine.
5. The experimental beef cattle.
6. The general farm crops.
7. The dairy where visitors will have an opportunity to witness the practical operations of butter and cheese making.
8. The orchards and gardens containing more than 60 acres of land.
9. The veterinary building.
10. The new agricultural hall.
11. The bacteriological department.

The several gentlemen who are specialists in these various departments and in personal charge of the work will meet the delegates after lunch and accompany them through their respective departments.

The special train will leave Blacksburg for Roanoke promptly at 5:00 o'clock, and all delegates who expect to return that night must be at the Station promptly at the time indicated.

Remember that any farmer in Virginia can become a member of the Institute on the payment of \$1.00, and that the railroads have made a special low rate.

ANDREW M. SOULE.

Secretary.

Blacksburg, Va., June 19, 1906.

THE PACKING HOUSE DISCLOSURES—THE SOUTHERN FARMERS' OPPORTUNITY.

The recent disclosures as to the filthy condition of some of the Chicago and other packing houses, and the absolute want of proper care for, and rejection of diseased carcasses, and other abuses surrounding the production of canned meat goods and sausages, all of which abuses it is now sought to remedy by the appointment of more Government inspectors whose fees will in the end whether paid by the packers or the Government, come out of the pockets of the consumers either in the shape of increased charges for the goods or increased taxes for the people, ought to open the eyes of Southern farmers to the importance of giving more attention to the production of beef and hog meat at home. We in the South can produce these staples as cheaply as they can be produced anywhere and of as fine quality. Indeed at the present time, here in Virginia we are producing beef which fills the requirement of the most exacting

market in the world, the British market, and hams and bacon which have the highest reputation of any such meat in the world, the celebrated Smithfield hams and bacon, but we produce little of the beef and bacon which goes into the regular home consumption of our people. That which we do produce is sold at prices which the majority of our people will not pay. There is a great market in the South to be supplied with both beef and bacon at moderate prices. This at present is supplied by the Chicago and other packing houses, and with its manipulation in those houses, we run the risk of having to swallow with our meat the dirty messes which the disclosures show to be common with much of the production of those places. If our farmers would only give more of their time and attention to the breeding of a better type of both beef and bacon animals, and to the making of these into meat of a better type than that usually to be found on our markets, a great business could be built up which would oust the Western products from our markets, for these products could profitably be put on our markets at prices with which these Western products could not compete and we would know that in these home products, home killed, and home cured, we were eating wholesome food. The large cities and towns of the South should establish municipal abattoirs, where all meat brought on the markets should be required to be slaughtered and handled under the inspection of the officers of health of the cities, and this would give confidence to our city people and lead to their insisting upon being supplied with the local products. This is the method adopted in the large cities and towns of England, and the result is a fine market for all locally bred and fed stock. These municipal abattoirs are paying institutions as they require each butcher to pay a fixed fee for the use of the abattoir in respect of each animal slaughtered and the butchers willingly avail themselves of the much better facilities afforded for the doing of their work than can be provided except at serious cost in private slaughter houses. If this should be the result of the packing house disclosures Southern farmers will have great cause to be thankful they have been made. We only need for farmers to realize the opening there is for them in this business, for them to take hold of the business and the result must be profitable to them both directly and indirectly. Our staple crops can be made to make more money converted into these products and our lands can be made more productive by the use of the manure made by the animals instead of the wasteful use of commercial fertilizers now so common.

DENATURIZED ALCOHOL.

Thanks largely to the action of the National Grange representing the farmers of the North, West and Middle States (unfortunately the farmers of the Southern States have never taken up the Grange as a means of cooperative work in the interest of good farming, but have preferred to fritter away their power for good in local organizations having political or politico-economic motives and hence have been powerless to effect anything in behalf of the real progress and permanent advancement of the agricultural interests of the South), the bill for permitting the manufacture and sale of denaturized alcohol tax free has become a law despite the Standard Oil Company, and the wood alcohol interests. This is the first time we have known the Standard Oil monopoly to be worsted in its determination to keep control of an industry when once it had got its clutches on it and the farmers have done the work. Without their help the bill would have failed of its passage through the Senate. Even the Standard Oil senators and other representatives of monopoly in that Chamber realized that the farmers were in earnest on this question, and dare not thwart them. Alcohol for use in the arts and manufactures has been free from taxation in England, Germany and other countries for years, and largely takes the place which in this country has been filled by kerosene, gasoline and benzine. The Standard Oil Company, which has practically a monopoly in this country in kerosene, gasoline and benzine has succeeded up to now in keeping the tax on all alcohol, and thus prevented its use for supplying light and heat. Now that the tax has been removed, alcohol (denatured) will be used in the place of gasoline and benzine and largely in the place of kerosene as a source of power, light and heat, and the Standard Oil monopoly will have to compete with this in price or lose their trade. Denaturized alcohol can be made from almost all the products of the farm, indeed from all substances containing starch. Five gallons of the spirit can be made from a bushel of corn. In Germany where alcohol has for years taken largely the place of kerosene, gasoline and benzine as a source of power, light and heat, it is largely made from Irish potatoes, of which thousands of acres are grown solely for the purpose of making alcohol. The demand for this alcohol spirit is growing largely every day. It is used for running Automobiles and the great increase in these vehicles causes an immense demand for it. This automobile business is yet in its infancy. When it becomes fully developed, we look to see the demand for alcohol spirit enormously

be accomplished. The Standard Oil Company will have to cut down its price or get out of business.—The farmer has beaten it.

THE TAX ON VETCH SEED.

The N. I. Willet Seed Co., Augusta, Ga., write us that they have secured a ruling from the Board of Appraisers of New York City in favor of admitting vetch seed free of duty as a grass seed in place of being subjected to a 30 per cent. duty as has been the rule heretofore. This should greatly reduce the price of the seed and lead to its being much more largely sown. The high price of the seed has hindered its sale largely. In connection with the use of vetches for hay, they send us the following information as to what is being done with this crop in Georgia. As much can be done with vetches here for they grow luxuriantly. The two foreign vetches, English (*Vicia Sativa*) and the Russian (*Vicia Villosa*), which have been paying the 30 per cent. duty, have been but little grown around Augusta, though Augusta is the largest vetch-growing section in the country. We have a native vetch here—*Augustifolia*—which is quite valuable, yet last fall the Augusta territory, within three miles radius of our city, put down in *Sativa* and *Villosa* something like 500 acres. It is worth going some hundreds of miles to see these fields at present. Some fields were planted alone to *Villosa* and some to *Sativa*. These fields to-day are between three and one-half to four feet tall. Both plants stand very heavily, and the fields are a matted increased. The farmer in Germany runs his engine with alcohol spirit, warms his house with it and gets from it a better light than from kerosene and one much safer to use. For all these purposes it will soon come to be used here. Already 20,000,000 bushels of corn are used annually by the distillers for making spirit to drink. This will shortly become a mere flea bite compared with the quantity which will be used for making denaturized alcohol, and no doubt the Irish potato will here also be largely used for this purpose. Even diseased Irish potatoes will make good denaturized alcohol and thus find a use for that which is at present a complete loss to the producers. We hail the passage of this law as one from which farmers are going to derive great benefits and find greatly increased markets for their products. It, of course, will take a little time for the necessary manufacturing plants to be erected and equipped for work, but this will no doubt soon mass of foliage now in bloom, and just ready to cut. It may not be known generally that these plants have

about the highest nutrient value of all the grasses known. They are moreover a winter legume, and instead of taking from the soil cause enrichment. Our legumes are summer legumes; and by planting winter and summer legumes on the same land we can in twelve months not only secure magnificent hay cuts, but greatly enrich the land.

Other fields of these vetches were planted with oats, from a peck and a half to two pecks of Appier oats, 35 lbs. of *Sativa* or 25 lbs. of *Villosa* together with three quarts of Crimson Clover planted on top of the ground and not plowed under. This mixture makes feed of highest value, producing something like two tons per acre, and sells high up in the scale of hays. Now that the prices on these vetches have been so much reduced, there ought to be an enormous amount of these seeds sown this fall. When cut for hay these two imported plants do not reseed themselves, but the small amount sowed per acre and the low cost of the seed makes the acreage cost a small sum as compared with the fertilizing effect and the hay crop out-turn. There are individual shippers and growers of vetch here who sell from 40 to 60 cars per year of vetch hay mixture.

HAY MAKING AND PREPARATIONS FOR FOLLOWING CROPS.

Editor Southern Planter:

As the month of July approaches, it would not be amiss to give you some of my experience in haymaking and also the way I treat a meadow after cutting the hay from it. I have just completed saving the hay from 40 acres. It consisted of clover, red top and timothy, mostly red top, although 10 acres was as fine clover as I have ever seen in this country. We begin cutting just as soon as the dew is off. When the grass is wilted, we rake in wind rows and let stay about two or three hours, then throw into small cocks, about 100 pounds in each, and let them stay over night. Then after the dew is off we scatter out in the sun for about one hour and then put in large cocks; after a day or so it is ready for the barn. It will not mold, and is green, retaining all the nourishment, and stock will relish it. When I was a boy, we cured the hay all day, left it out over night, turned it over next morning and cured it all next day, then put it in large cocks and let it stay a week or so. In this manner we lost all the substance and our hay was little better than broom sedge. We make our pea hay in the same way as other kinds.

If it is the last year we want the meadow to run, we plow very shallow, cut with disc harrow and sow

about one and one-half bushels of cow peas to the acre. Then cut the peas for hay and turn the ground very deep using the subsoiler, and sow to wheat or rye. If we sow to rye and want to plant to corn, which is one of the best things we can find to clean the land, we pasture the rye all winter until the middle of April, then take stock off and let the rye get about 18 inches high and turn under. It is then ready for a corn crop. If we wish to sow grass and clover, we harrow the rye or wheat about middle of April with a good sharp drag harrow and sow the grass or clover. We have never yet failed to get a good stand.

The rye through the winter furnishes good pasture for calves, milk cows and sheep, but is not very good for hogs. For hog pasture, we would use winter oats. We are this year going to try vetch with our rye, and if successful, will let you know. I trust my experience may help some brother farmer who, like myself, is trying to bring up an old worn out Southern farm.

JOHN H. HATFIELD.

Roane County, Tenn.

TREATMENT OF WOUNDS IN ANIMALS.

Gun Shot Wounds.

Under the term gun shot wounds is included all injuries caused by the discharge or bursting of fire-arms, these in times of peace are of rare occurrence, there are, however, some general remarks applicable to such accidents. When vital parts are injured to such an extent as to lead to fatal results in food producing animals in good condition, no time should be lost in slaughtering and dressing the carcass. The loss even in valuable animals will at least be modified. Where superficial parts only are the seat of injury, and foreign substances, such as shot or ball can be removed with safety, such should be done early, as delay not only renders the operation more difficult, but lessens the patient's chances for early and complete recovery, a probe, sharp scalpel, and fine pointed forceps being the instruments required. Having accomplished the desired end, the parts require the same general management as punctured wounds, free and uninterrupted drainage, complete disinfection of the parts and absolute quiet on the part of the patient. Shot and bullets of small calibre seldom do much damage in soft tissue after the parts have become healed over. Nature throws a protective covering over them (encysted) and the parts adapt themselves to their new surroundings.

Under the head of poisoned wounds, come all those cases which are inflicted by venomous insects, reptiles, rabid animals, &c., Stings of bees and wasps, probably head the list in point of frequency, but are of comparatively slight consequence, and only demand a passing notice. Where injury has been done sufficiently great to produce much swelling and irritation, the parts should be freely bathed with diluted ammonia. Some spiders have acquired an extraordinary reputation on account of their deadly venom. The *Tarentula*, abounding in tropical climates strikes terror into the very heart at the mere suggestion of its presence. Some (of which there are many) families of this order occasionally reach our own shores in banana bunches, but the rarity of injury done from this insect leads the writer to the belief that its powers of destruction have been altogether exaggerated, and when patients have been bitten, little damage results beyond slight local irritation which readily yields to the same treatment as stings of wasps and bees. Wounds inflicted by venomous reptiles such as poisonous snakes; though not common, do occasionally occur, and frequently endanger the animal or person bitten; treatment in such cases to be effectual should be prompt. It is known that the poison introduced into such a wound is dangerous in two ways; 1st by its great depressing effect upon the nerve centers (brain and spinal cord), causing death by sudden collapse; 2nd, by the destruction and death of the tissues wounded, which by their death poison the system through absorption. To prevent sudden collapse, the venom should be prevented from reaching the blood system by placing a ligature above the seat of injury. In the case of a hand or foot, this can be accomplished, and although painful and serious, may save the life of the patient if circulation is cut off completely. No time must now be lost in consulting a physician, who will immediately inject the tissues freely with a strong solution of permanganate of potash, by means of a hypodermic syringe. This product is known to have the power of neutralizing the poison of venomous reptiles and render it harmless. In case depression becomes evident this may be overcome by heart and nerve stimulants. Alcohol, ammonia, strychnine, digitalis, &c., most of which must however be administered under a physician's care. The popular idea that large doses of whiskey are an antidote is altogether incorrect; properly regulated doses are heart stimulants, and when given beyond that become heart depressants. Whiskey primarily stimulates and subsequently depresses. The degree of depression is exactly in keeping with

the stimulation. Consequently an overdose of whiskey, instead of stimulating the heart and thereby combatting the depression of the venom adds to the depression and aids it in its deadly work.

The after treatment consists in the proper attention to the wound inflicted, cleanliness, disinfection &c. Probably the most frequent form of poisoned wound met with in this country is that inflicted by the bite of rabid dogs. This wound is most dangerous to human beings, when inflicted about the face and head, as it is known to be followed by a greater percentage of transmissions of rabies than when inflicted in other parts of the body. When such a wound is inflicted the patient should loose no time in cauterizing all parts with which the animals teeth have come in contact. This is most effectually done with a red hot iron, other caustics, such as pure carbolic acid, lunar caustic, &c., are quite effectual, but none do the work so completely and surely as a hot iron. If the wound is a bad one, the patient should at once go to one of the various Pasteur Institutes for the proper treatment, as the period of latency, though usually long and uncertain, may be exceptionally short, the earlier after the injury, treatment is applied the more certain will good results follow.

Where food producing animals are known to have been bitten, no time should be lost in slaughtering, as the virus is not communicated in the flesh. All dogs and cats which have been exposed must be regarded with the greatest suspicion and kept confined accordingly, for at least four months. And even then there is no certainty of safety, as cases are on record where the latent period has extended over a period of upwards of a year. Very valuable dogs may be subjected to the Pasteur treatment where expense does not figure too conspicuously, and where not too great in proportion to their relative value.

Among the various substances employed in the treatment for wounds, may be mentioned corrosive sublimate, carbolic acid, creoline, and the various other coal tar products, turpentine &c., al of which accomplish the desired end when properly used, but to be of service must possess antiseptic properties. Antiseptics are agents which prevent the growth and development of the micro-organisms, occasioning fermentation, putrification and disease, more especially the micro-organisms producing suppuration. The old popular idea that a profuse discharge of puss from a wound is an indication that healing is progressing favorably, has been exploded. Puss denotes the presence of puss forming organisms, these live and multiply on the reparative material which nature brings and deposits on the surface of a wound for its re-

pair, converting it from reparative material into puss, a substance, not only utterly devoid of healing properties, but injurious to that process. Antiseptics then free the wound of these organisms and permit healing to progress; therefore antiseptics do not heal, they simply destroy germs which delay healing that nature may do its work without interruption. Antiseptics to be of service in the treatment of wounds must fall short of injuring reparative material or the surrounding tissues. Much damage is frequently done by their improper use. Corrosive sublimate, for instance, possesses antiseptic properties in the highest degree, yet if employed in too concentrated a solution, also destroys reparative material, hence do as much damage as bacteria. Many others in like manner frequently destroy the very substance which they are intended to protect.

Corrosive sublimate may safely be employed in a 1 to 1,200 or 1 to 1,500 solution. No stronger. Carbolic acid and Creoline are exceedingly useful in from 1 per cent. to 2 per cent. strength, the former requires a solvent such as glycerine as water only takes up 1 part in 1,200; while the latter is freely soluble, forming a milky emulsion. Many cheaper products, though similar, are also to be had, among them might be mentioned chloro-naphtholeum, which gives excellent results. Turpentine, although an excellent antiseptic should never be employed on animals (especially horses) in the pure state. While possessing antiseptic properties to a marked degree, the extent of irritative fever produced is not warranted by the good effects obtained, it may, however, be employed with satisfaction if dissolved with its own quantity or twice that amount of linseed or cottonseed oil.

Antiseptics give better results when employed warm, about the temperature of the body.

Many dry dressings are now on the market, some of which give excellent results, these too, must fall short of the undesirable features possessed by many substances in solution, which if obtained, possess desirable qualities, being more stable and lasting than solutions.

Whatever the character of the wound, prompt and thorough cleanliness must be resorted to, and remember so-called healing lotions do not heal, they simply protect the tissues from the invasion of germs which are injurious so that nature has an opportunity of doing its work, and the most we can hope to accomplish is to destroy those organisms already present and prevent their further introduction.

JNO. SPENCER,
Veterinarian.

Experiment Station, Blacksburg, Va.

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will be furnished on application.

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WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. Criticisms of Articles, Suggestions How to improve THE SOUTHERN PLANTER, Descriptions of New Grains, Roots, or Vegetables not generally known, Particulars of Experiments tried, or Improved Methods of Cultivation are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.

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PUBLISHER'S NOTES.

To Advertisers.

Be sure to send in your copy or instructions on or before the 25th of the month for the following month's issue. This is imperative.

Loudoun Co., Va., Feb. 19, '06.

I consider the Southern Planter the best agricultural paper published for the Southern farmer.

J. V. NICHOLS.

WHOSE MONEY?

On June 25th, we received a remittance, post marked "Birdsnest, Va." but without any means of identifying the sender. As we have a number of subscribers at this and nearby offices we are unable to credit it. If the rightful owner will describe said remittance we will cheerfully place it to his credit.

STATE MEETING OF A. S. OF E.

The Virginia State Union of American Society of Equity will meet in Staunton, Virginia, on Thursday, July 26th.

Each county having a county union will be entitled to two delegates at large and one delegate for every one hundred members or major part thereof. Each local union in counties not having a county union will be entitled to one representative in the State Union meeting where he shall have voice, but no vote.

County and local unions are requested to elect delegates and representatives at first meeting and notify the State secretary of same, giving names and postoffice.

One of the officials from the National Union will be present at this meeting.

T. W. EVANS,
Secretary Virginia State Union.
Concord Depot, Va.

New Kent Co., Va., Mar. 12, '06.

I would not do without the Southern Planter.

W. A. BRADBY.

Johnstown, N. Y. Feb. 10 '06.

Dr. S. A. Tuttle:—I wish to thank you for the goods you sent me and I cannot express the good your Worm Powders and Condition Powders did my colt. I have not seen his legs look so well in eighteen months as they do since using your powders. I am now on the last box of each kind, and I think you had better send me, say, twelve packages of each kind so I may have them on hand. Your Elixir did excellent work for me, but as I can get it at Mr. Stollers', will not order from you now. The enlarged glands are gone and I think the hard breathing has passed away, as I started him up the other day and did not hear him breathe.

Yours truly,

JAMES TOPP.

Wood's Seeds.

Crimson Clover

sown at the last working of the corn or cotton crop, can be plowed under the following April or May in time to plant corn or other crops the same season. Crimson Clover prevents winter-leaching of the soil, is equal in fertilizing value to a good application of stable manure, and will wonderfully increase the yield and quality of corn, cotton or other crops which follow it. It also makes splendid winter and spring grazing, fine early green feed, or a good hay crop. Even if the crop is cut off, the action of the roots and stubble improve the land to a marked degree.

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Wood's Descriptive Fall Catalogue ready about August 1st, tells all about Farm and Vegetable Seeds for fall planting. Mailed free on request.



WARRINER chain hanging stanchions save cost in feed in one winter, says H. A. Moyer Syracuse, N. Y. I think them perfect writes I. B. Calvin, Kewanee, Ind., vice-president state dairy association. Send for booklet containing further information to WALLACE B. CRUMB, South St., Forestville, Ct.

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WITH THE ADVERTISERS.

The Overton Hall Farm is a new
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Jerseys and Berkshires are offered.

W. M. Watkins & Sons are offering
some splendid horses as well as Aber-
deen Angus cattle, both grade and
pure-bred. Look up the advertise-
ments.

The Columbia Manufacturing &
Supply Co. have a full page ad. on the
third cover, of their \$50 Columbia
King buggy.

H. W. Hilleary & Co. are offering
for sale a splendid blue grass stock
farm in the Valley of Virginia.

Some splendid Shropshires can be
had of Rev. S. S. Hepburn, Church
Hill, Md.

Another new advertiser in this
issue is Mr. Hiram Bowman. We in-
vite attention to his offering of Berk-
shires, etc.

The Tennessee State Fair Associa-
tion has an announcement on another
page.

The Lynnwood Stock Farm is offer-
ing some finely-bred Percherons and
Shorthorns at bargain prices. Look
up the advertisements, or, better still,
go and inspect the stock.

The Hygeia Farms resume their ad-
vertising of their splendid herd of
Holsteins.

H. A. S. Hamilton & Sons, Hill Top
Stock Farm, start the season's adver-
tising with this issue.

George C. Burgess, Southern Agent,
has an announcement of the Ellis
Champion Thresher on another page.
Farmers should look into the merits
of this machine.

The American Shock Binder Co. is ad-
in this issue. This is an exceedingly
vertising the Fontaine Shock Binder
useful device, and every farmer
should have one or more of them.

S. T. Heninger is offering some
pure bred Dorset Bucks, and a large
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E. F. Leuenberger offers his splen-
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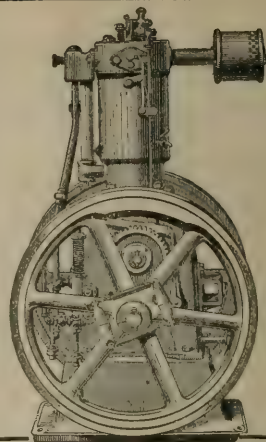
JUST THE THING FOR SPRAINS AND BRUISES.

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jured her hind leg so badly that she was
unable to rise. I followed your direc-
tions, and in three days she was on
her feet again and is now as strong as
ever. I think it is just the thing for
sprains and bruises, as it goes direct
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CHAS. LEIGH.

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Elsewhere in this issue will be
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\$300; 6 horse gasoline engine, \$150; 10 horse,
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new boiler and engine \$135; two feed mills,
\$25 each. New boilers, all sizes, made to
order; second-hand boilers and engines, from
3 to 100 horse.

D. L. CASEY MACHINE CO., Springfield, O.

Clipper Lawn Mowers

Will cut short grass, tall grass and weeds. If your dealers have not them here is the price:

No. 1-12 in. \$5.00 No. 2-15 in. \$6.00
No. 3-18 in. \$7.00 No. 4-21 in. \$8.00
Pony 24 in. \$18.00.

Send draft or money order.



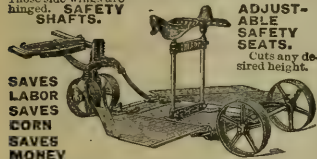
CLIPPER LAWN MOWER CO., Dixon, Ill.

SAVE LABOR

in that most slavish job of cutting corn by using the

SCIENTIFIC CORN HARVESTER

Those side wings are hinged. SAFETY SHAFTS.



It meets every requirement of a machine corn cutter at a price that places it within easy reach of every farmer. Send for catalogue and price.

THE FOSB MFG CO. SPRINGFIELD, O.



• HEEBNER'S ENSILAGE CUTTER.

The best cutter on the market for green or dry corn. Leading ensilage cutter made. It not only cuts but crushes the stalks, rendering them palatable. Stock greatly relish and thrive on it. A \$500 machine turns the whole into a perfect silage. Runs with least power. Used for cutting all kinds of stock food. Power can be applied to pumping, churning, grinding, etc. Catalogue free. HEEBNER & SONS, 25 Broad St., Lansdale, Pa.



BUY DIRECT

and save dealers profit. Vertical, Horizontal, and Portable Gasoline Engines. Pumping outfits a specialty. Our Engines are guaranteed to do all we claim for them or our money refunded.

Write to day BAU ROTH BROS., 9-16 Fisher St., Springfield, Ohio.

Let Us Tell You Why. We want to send you our big Free Catalogue just off the press. It tells why the **American Manure Spreader**—sold On Trial and On Time—is the best Spreader value on the market. With the catalogue goes our booklet on the Value, Care and Application of Manure. It's a fertilizer story well told by "a man who knows." Write for these two books today—they're free. **American Harrow Co., Detroit, Mich.**

MITES AND LICE.

There is a marked difference between the red mites and lice which is not easily distinguished by the average poultryman. Red mites are the insects that are so often found on the roost, walls and in the nests boxes of the poultry houses. They breed in the cracks and crevices of the woodwork. They are more like a minute spider in form than a louse. The Prussian Remedy Co., of St. Paul, Minn., make a Liquid Lice Killer, which they claim is a most effectual remedy for lice and mites. It is called the Prussian Lice Killer and is applied thoroughly with a paint brush to the walls, roosts and nest boxes, or with a sprayer. They advise the use of a sprayer, as the vermin are killed both by the vapor and by contact with the liquid. The use of the Prussian Lice Killer is very inexpensive, as a 50 cent can is sufficient for the season for an ordinary flock. They also make the Prussian Lice Powder, a very effectual remedy easy to apply for dusting into the feathers and the nest boxes. The Liquid Lice Killer is put up in 30c., 50c. and \$1 cans, and the Lice Powder in 25c. and 50c. packages.

MURPHY ADVERTISING COMPANY.

We are pleased to note from our Exchanges the organization of the above company at Birmingham, Alabama, with Mr. Robert E. Murphy as president and Mr. J. D. Dabney, Jr., secretary and treasurer. This company, already one of the leading advertising agencies of the South, is amply prepared to take care of its steadily increasing business in the shape of preparing and executing advertising campaigns.

WHITE'S ANNUAL "ROUND UP."

White's Class Advertising Co., of Chicago, one of the largest advertising agencies in the country, held its annual "Round Up" at the Auditorium Hotel, Chicago, during the last week in May. It has been the custom of this company for several years past to invite a large number of the leading advertisers and advertising men of the country to its festival board. On this occasion, more than five hundred people attended the banquet and it was their unanimous verdict that it was a great success in every particular.

The following day, about two hundred of them availed themselves of the opportunity of inspecting the great mercantile establishments of Crofts & Reed and Sears, Roebuck & Co. What they saw was, indeed, a marvel to them and opened their eyes to the great possibilities of advertising.

Our congratulations to Mr. White, who has been "at it for 18 years."

Let Us Send You Our Book.

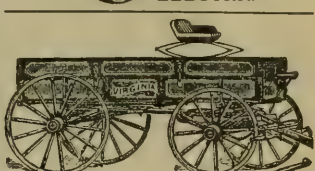
about good wheels and good wagons that will save you a lot of work and make you a lot of money—the

ELECTRIC STEEL WHEELS

ELECTRIC HANDY WAGON.

By every test, they are the best. More than one and a quarter millions sold. Spokes united to the hub. Quik work loose. All that you will make your old wagon new. Catalogue free.

ELECTRIC WHEEL CO., Box 148, Quincy, Ills.



VIRGINIA WAGONS.

Made right at home by home folks out of home grown and made materials. You can't get a BETTER wagon for twice its price. Drop in and inspect it, or send for Catalogue and prices. RICHMOND BUGGY & WAGON CO., 1433 East Main St., Richmond, Va.

EVERYTHING IN CARRIAGES AND HARNESS.

Try Before Buying \$35.50

We want to send you our \$35.50 buggy for a free trial of 30 days. You do not put in a cent of money. We nor bind yourself to purchase. We'll direct from maker to user. Our factory is the only one giving

3 Two Years Approval Test. Your money back if your vehicle does not stir right. \$25.00 bank deposit back of this pledge. Write for big catalogue. The Anderton Mfg. Co., 42 Third St., Cincinnati, O.

WE'LL PAY THE FREIGHT and send a Heavy Wheel, Steel Tire on - \$1.75. Galvanized Wire Ropes, No. 14 @ \$1.40 per 100 lbs.; No. 11 Galvanized Wire, continuous lengths, "B. B." 100 lbs., \$2.50; Painted Barb Wire, per 100 lbs., \$2; Galvanized Barb Wire, per 100 lbs., \$2.50; Galvanized Fencing, 120 square ft., 40c.; Galvanized Field Fence, finest manufactured, per rod, from 15 to 60c. Fence Wire for every purpose.

10,000 feet of Lawn Fencing, per foot, 25 to 60c.; Steel Fence Posts, independent, latest patent, 4 inches above ground, complete per post, 35c. We can furnish posts for any purpose and in any size.

Well Drills
For Horse, Steam or Gasoline Power
Well Augers
For Horse Power
Address
LOOMIS MACHINE CO.
TIFFIN, OHIO

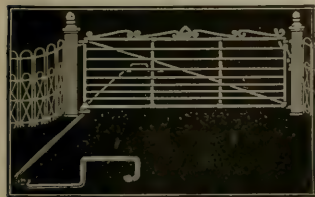
100 LBS. FENCE WIRE, \$1.25

At this price we offer our Painted Wire Shorts, No. 12 Galvanized Wire Ropes, No. 14 @ \$1.40 per 100 lbs.; No. 11 Galvanized Wire, continuous lengths, "B. B." 100 lbs., \$2.50; Painted Barb Wire, per 100 lbs., \$2; Galvanized Barb Wire, per 100 lbs., \$2.50; Galvanized Fencing, 120 square ft., 40c.; Galvanized Field Fence, finest manufactured, per rod, from 15 to 60c. Fence Wire for every purpose.

10,000 feet of Lawn Fencing, per foot, 25 to 60c.; Steel Fence Posts, independent, latest patent, 4 inches above ground, complete per post, 35c. We can furnish posts for any purpose and in any size.

Wire Nails. Wire Nails, each containing 100 to 110 lbs. from 3 to 30 penny weight, per keg, \$1.50. Wire spikes, 100 lbs., \$9. Mixed iron bolts, 100 lbs., \$2.00. Ask for free 600-page Catalog No. 3, 1906 on Wire Fencing, Roofing, Household Goods, Tools and Merchandise of every kind from Sheriff's and Receiver's Sales.

CHICAGO WIRE WORKING CO., 35th and Iron Sts., CHICAGO

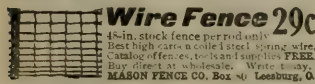


MANLOVE SELF-OPENING GATE

ALWAYS IN ORDER.

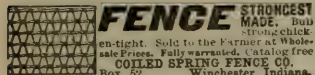
This gate can be placed at any driveway entrance, attached to ordinary posts and soon pays for itself in time saved. It is opened or closed by any vehicle without assistance or stopping. By its use runaway accidents are avoided. Machinery is all above ground and so simple it never gets out of order.

It adds to the beauty, value, safety and convenience of any home. Address MANLOVE GATE CO., 272 E. Huron Street, Chicago, Ill.



Wire Fence 29c

48-in. stock fence, period only.
Best high-tensile, cold-chambered wire.
Catalog offered to all who supply FREE.
Buy direct at wholesale. Write today.
MASON FENCE CO., Box 40, Leosburg, O.

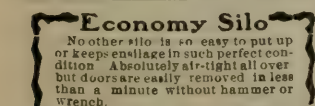


FENCE STRONGEST MADE

Best high-tensile, cold-chambered wire.
Catalog offered to all who supply FREE.
Buy direct at wholesale. Write today.
COILED SPRING FENCE CO.,
Box 52, Winchester, Indiana.

B-B FENCE STAYS

Beats all Farm Fence at your price.
Address B. B. FENCE CO., Box 60, Peru, Ind.



Economy Silo

No other silo is so easy to put up or keeps enilage in such perfect condition. Absolutely air-tight all over but doors are easily removed in less than a minute without hammer or wrench.

Doorways are continuous from top to bottom, give easy access to the enilage, and the hoops form a perfect, permanent air-tight.

Unique in construction, made from the best materials and fully guaranteed.

Write for free illustrated catalogue & with experience of users. Economy Silo & Tank Co., Frederick, Md.



SILOS

The Philadelphia, the Best on Earth

Has the Longest Test and most in use Continuous Opening from Top to Bottom. The Only Opening Roof made.

TANKS and TOWERS.

Ask for Price and Catalog.

E. F. SCHLICHTER,
1910 Market Street,
Phila., Penna.

Always mention the Southern Planter when writing advertisers.

ENQUIRERS' COLUMN.

VARIETY OF CLOVER TO SEED.

This fall I want to seed some land to meadow, will you kindly say in your most valuable paper which kind of clover you think best to sow with orchard grass for best results? Common Red Clover, Alsike, or the large red variety. And which variety will do best on rather poor land.
Norfolk Co., Va. A. A. M.

We would sow a mixture of common Red and Alsike. Alsike is a perennial hybrid and will stay with you long after the common red has run out. The red will, however, help to increase the yield of the meadow for the first two years, and then, in the decay of its roots, will provide food for the other grasses. Alsike also succeeds better on poor land than the other varieties.—Ed.

HOG PASTURE.

I keep four or five sows and one boar. Have pasture lot in grass with oak trees, hickory, walnut, locust, cherry, pear, peach, etc., with running water from spring; there is a piece of clay ground (two or three acres) adjoining fenced on two sides, I think of putting wire fence on other sides and then cutting into lots and sowing or planting in something suitable to put hogs on for few hours at time. Will you kindly advise me through The Planter what is best for the purpose? Have had peas, soy beans and some clover on this land, and oats now on small part of it.

N. E. SCALES.

Rowan Co., N. C.

We would divide the land into three lots and sow one in cowpeas or cowpeas and sorghum at once. The next lot we would sow in crimson clover, 10 pounds to the acre; rape 4 pounds to the acre and wheat, oats and rye in equal parts, 3 pecks to the acre. The other lot we would sow in hairy vetch, 1 bushel to the acre, and 3 pecks of wheat, oats and rye in equal parts to the acre. This would give you grazing through the early fall, winter and spring, and the cowpea lot would be ready to sow in rape in February or March for grazing in May and June. The lots should next year be put into sorghum, cowpeas or soybeans, and the crimson clover and rape mixtures, changing the location of the different crops so as to keep from growing the same crop on each lot each year.

PERMANENT PASTURE.

1. I have 20 acres of land that I have sown in Soja beans this spring. I would like to sow this land in the fall in a mixture of grass that will make a permanent sod. How would



THE BEST WASHING MACHINE ON EARTH.

Made on scientific principles, it saves TIME as well as clothes.

Made by the largest wooden-ware manufacturers in the world, who can afford to make the best Washers, CHEAPER THAN OTHERS.

Send for illustrated catalogue, it will please you.

Send for the machine itself, it will satisfy you.

MADE AND GUARANTEED BY

The Richmond Cedar Works,
Richmond, Va.



How to bale Hay to bring the top of the market; how to make the best bale of anything valuable, from pine shavings to wool; how to select the Baling Press best suited for your particular work—is all told in

Dederick's Book

SENT FREE

It tells you things you must know to make the greatest profits. It tells you facts that may save you money later on. This valuable book and Annual Report on Hay Crops sent free on request.

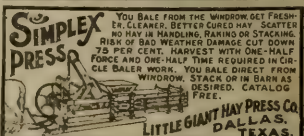
P. K. DEDERICK'S SONS,
81 Tivoli St., Albany, N. Y.

RED RIPPER HAY PRESS

Combines power, speed, simplicity, durability, convenience and cheapness. Full circle, double scrub. Only press which regulates weight of bales automatically. Write today for booklet showing low farmers' prices.



Address,
Sikes Mfg. Co., Box 19, Ocala, Ga.



YOU BALE FROM THE WINDOW GET FRESH-ER, CLEANER, BETTER CURED HAY. SCATTER NO HAY IN HANDING, RAINING OR STACKING. RISK OF BAD WEATHER DAMAGE CUT DOWN 75 PER CENT. HARVEST WITH ONE-HALF FORCE AND ONE-HALF TIME REQUIRED IN GRASS BALE WORK. YOU BALE DIRECT FROM WINDOW. STACK OR IN BARN AS DESIRED. CATALOG FREE.

CEMENT POSTS

Cheaper than wood, make your own on a Hercules Post Machine. Also Building Block Machines. Catalogue free.—HERCULES MFG. CO., Dept. A181, Centerville, Iowa.

SPOTLESS PAINTS

97 CENTS
PER GALLON



3 gallons Spotless Paint ready for the brush
FREE with CHARGES PAID as a Sample
to SHOW you where you can get the
best and cheapest paint.

THE FAIREST PROPOSITION EVER OFFERED IN ANY LINE. We will send you enough of our SPOTLESS PAINT, ready mixed and ready for the brush, to do any amount of painting you have to do with the distinct understanding and agreement that you are to have the privilege of opening and using THREE GALLONS, giving it the most rigid tests known to prove that it is unmatchably the BEST and at the same time the CHEAPEST paint on the market. If you do not find, after making your own tests and experiments, that ours is the BEST and CHEAPEST paint you can buy, we will only ask that you return the unpainted paint to us FREIGHT COLLECTOR. We will make no charge for the Paint used in the test.

WE GUARANTEE

that our SPOTLESS HOUSE PAINTS are unsurpassed by any other paints at ANY PRICE for LASTING QUALITIES and CLEARNESS OF COLOR, and that they will give perfect satisfaction for five years. They will cover as much surface and cover it as well as the most expensive paints.

Do not pay three prices for paint until after you have tried this liberal proposition. Write for Color Card and Catalogue.

SPOTLESS CO., INC.,

Box 364 z RICHMOND, VA.

Save The Posts

Old field pine made to last longer than cedar or locust by creosoting with dead oil of coal tar. The creosoting of lumber makes it practically indestructible, stops all rot and is absolute death to all insects. Write for prices to the NORFOLK CREOSOTING CO., Norfolk, Va.

FUMA kills Prairie Dogs, Woodchucks, Gophers, and Grain Insects. "The wheels of the Gods grind slow but exceedingly small." So the weevil but you can stop their grind with

Fuma Carbon Bisulphide as others

It fumigates poultry houses and kills hen lice. **EDWARD R. TAYLOR, Penn Yan, N. Y.**



LAWN FENCE

Many designs. Cheap as Wood. See page Catalogue free. Special Prices to Churches and Churches. Address **COLLEGE REFINING FENCE CO.** Box Q Winchester, Ind.

timothy, blue grass and orchard grass do to sow? If so, how much of each to the acre? If this is not good, please tell me some good mixture. What does blue grass and orchard grass weigh to the bushel? Should I Disc the land or plow? How much fertilizer and what kind to the acre? The land has a good bit of clay on it.

Fauquier Co., Va. D. B. K.

Unless you cut the soy beans and make them into hay, we are afraid that you will not be able to sow grass seed early enough in the fall to secure stand. Soy beans have a long period of growth when a matured crop of seed is desired. They make excellent hay cut when in full growth and with part of the pods well filled and hardening. If you desire to secure the permanent pasture, we would advise you to make the soy beans into hay, cutting them in August. Then disc the land both ways, applying 25 bushels of lime per acre before the last discing and prepare a fine seed bed with the harrow and roller. Apply 400 pounds of bone meal per acre and harrow in. Then sow a mixture of grasses and clover in September. If intended for a meadow, sow tall meadow oat grass, orchard grass and herds grass in equal parts—2 bushels to the acre—with 15 pounds of alsike clover and red clover mixed, in equal parts per acre. If intended for a pasture, add to the mixture of grasses above mentioned meadow fescue and Virginia blue grass (sometimes called Canada blue grass). 1 bushel in equal parts. It is very little use sowing Kentucky blue grass except upon limestone land. Alsike clover is a perennial hybrid clover and will continue with you after the red clover runs out. Timothy is fit only for a hay grass, and should be seeded alone. Orchard grass and blue grass weigh 14 pounds to the bushel.—Ed.

COWPEAS AND ALFALFA.

I have three acres of red clover, which I expect to cut about the 15th instant. After cutting clover, I want to sow said land with New Era cowpeas for hay. Kindly advise me whether it would be too late to sow the land in alfalfa after getting the pea hay off. Should it be too late would vetch be a good forage crop? If so, what kind of vetch?

Spottsylvania Co., Va.

No. You should be able to get the cowpea hay crop off in time to sow alfalfa. Note what we say in this issue in reply to an enquirer as to so preparing the land for the cowpea crop as to obviate the necessity for a second plowing for the alfalfa, and also as to fertilizing of the land. If you should fail to get the alfalfa seeded, hairy vetch, seeded at the rate of one bushel to the acre, with a bushel

HERCULES Stump Puller



Cleare an acre of heavy timber land each day. Cleare all stumps in a circle of 125 feet without moving or changing machine. Strongest, most rapid working and best made. **HERCULES MFG. CO.,** 415 17th St., Centerville, Iowa.



THE IMPROVED
SCREW STUMP PULLER.
Write for Prices.

Chamberlin M'fg Co, Olean, N. Y., U. S. A



"WILLIAMS" Write for special offer to introduce out patented pump. A Wooden Pump made of iron. Guaranteed. All repairs done quickly above ground.



"Williams" Pump Co., 467 Harmon St. Indianapolis, Ind.

SAN JOSE SCALE

and other INSECTS killed by

GOOD'S

Caustic Potash Whale-Oil Soap No. 3

Endorsed by U. S. Dept. of Agri. and State Experiment Stations. This soap is a Fertilizer as well as an insecticide. 50 lb. kegs, \$2.50; 100 lb. kegs, \$4.50; half barrels, \$7.00; 80¢ per lb; barrel, 45¢ lb, 3¢. Send for booklet, **JAMES GOOD, Original Maker,** 929-41 N. Front Street, Philadelphia, Pa.

WANTED - Bills to Collect -

in all portions of the United States. No collection. No Charge. Agents wanted everywhere. 26 year's experience—**PALMORF COLLECTION AGENCY, 911 Main St., Richmond, Va.**



EARN A WATCH A Genuine American made Watch, stem wind and set, guaranteed 1 year, given for selling 24 packages of DeKorn's Headache Tablets at 10¢ package. These tablets are easy to sell, try it. **T. S. Leake, 627 N. 22d St., Richmond, Va.**

U.M.C.

METALLIC CARTRIDGES

How much does every wood-chuck cost you? Maybe a broken harvester or a horse's leg. A box of U.M.C. cartridges is the cheapest insurance. Made by cartridge specialists and shoot to kill.

U. M. C. cartridges are guaranteed, also standard arms when U. M. C. cartridges are used as specified on labels.

THE UNION METALLIC CARTRIDGE COMPANY
BRIDGEPORT, CONN.
Agency: 313 Broadway, N. Y.



Make Your Idle Money Earn You Interest

Write the **FIRST NATIONAL BANK OF RICHMOND, VIRGINIA** for information concerning its certificate of deposit, so arranged that one per cent. may be collected every **FOUR MONTHS** through your nearest bank or store.

Our experience proves this form for savings to be the most satisfactory plan yet devised for deposits of \$100.00 or more.

Our Capital and Surplus is

ONE MILLION DOLLARS.

JOHN B. PURCELL, President.

JNO. M. MILLER, Jr., Vice-Pres. & Cashier

CHAS. R. BURNETT, Assistant Cashier

J. G. JOPLIN, Assistant Cashier

FARMERS

Insure Your Buildings.

LIVE STOCK, PRODUCE, &c.

Write for booklet giving plan and explaining how you can become a member of the . . .

Farmers Mutual Benefit Ass'n.

this securing cheap fire protection. Property insured, \$500,000; average cost per \$1,000 per year, \$5.00. Estimated Security, over \$1,000,000. Memberships and risks limited to Eastern Va. **CHAS. N. FRIEND, Gen. Agent, Virginia Division, CHESTER, VA.**

ORGANIZED JANUARY 9, 1899.

"Feeds and Feeding"

Prof. Henry's Great Book for Farmers and Stockmen.

Delivered anywhere for . . . **\$1.00**

With the **SOUTHERN PLANTER, 2.35**

of winter oats, wheat and rye mixed in equal parts, will make a good winter cover for the land and an early spring pasture and cutting for feed. —Ed.

SICK HORSE.

I have a valuable horse that, for the last two months, has had very little appetite, except for corn. I have tried all kinds of rough food, both green and cured. Has lost considerable flesh, yet, does not seem to be sick at all. When turned on clover or grass, bites a mouthful here and there. I have tried several preparations, but he does not improve. Will be glad of advice. **SUBSCRIBER.**

Mecklenburg Co., Va.

Have the teeth of the horse examined. It is very probable that they require attention. Sharp corners want rasping off and probably some require removal. Bad teeth are a frequent cause of indisposition to eat rough food. Give the horse a purgative—one ounce of aloes and 1 pint of linseed oil. This will clean out any disturbing causes in the stomach and bowels. Follow this with the following alkaline tonic: Baking soda, powdered ginger and powdered gentian in equal parts. Mix thoroughly and give in heaping tablespoonful doses twice a day before feeding. This tonic is best given as a drench, dissolving each dose in a pint of water. Continue this tonic for a week, and then give a vegetable tonic made up of Peruvian bark, gentian, ginger and quassia in equal parts. Give in half-ounce doses twice a day for a week or ten days. It may be that worms are troubling the horse. Look out for indications of this trouble, and, if noticed, give turpentine., one ounce, and linseed oil, 2 or 3 ounces, mixed, on an empty stomach, to be followed next day by a purgative of Barbadoes aloes, 1 ounce. Follow this with the vegetable tonic.—Ed.

RAISING A CALF.

Kindly give me some information as to how to raise a calf. I have not the time to raise by hand and don't know about letting calf run with mother all the time, also, would like to use some or all of the milk. **A NOVICE.**

Henrico Co., Va.

You cannot raise a calf and use all the milk yourself. You may raise a calf and have some of the milk which the cow gives; that is, assuming that she is a good milk cow, and gives more than is sufficient for the support of the calf until it is old enough to eat grass and grain. To do this, you will have to milk the cow and feed the calf by hand. The calf should have been taken away from the cow as soon as calved, and then neither cow nor

Send Your Order For

Seeds

TO

DIGGS & BEADLES,

Seed Merchants,
RICHMOND, - VA.

We are Headquarters for High Quality Seeds at Reasonable Prices.

Cow Peas, Soja and Field Beans, Rape, Sorghums, Insecticides, Foultry Supplies, Fertilizers and everything carried by an up-to-date seed house.

Write us for quotations stating varieties and quantities wanted.

Southern Agents for the Celebrated

Orchilla Guano

AND

Swift's Fertilizers.

Catalogue Mailed Free.

ALFALFA SEED

We have on hand, at all seasons, a fresh supply of pure Alfalfa seed, free from dodder and all other injurious weeds. Our seed cannot be surpassed anywhere. Write to us at any time for either large or small quantities and we will be glad to quote prices. **J. E. WING & BROS., Mechanicsburg, O.**

500 BUSHELS

BLACK PEAS

for sale. Apply to **R. F. BROADBUSH, R. F. D., No. 1, Highland Springs, Va.**



LEARN HOW TO EARN \$3,000 A YEAR.

FROG RAISING. A business that starts on small investment and brings large returns. Our new book gives you the practical knowledge. Price postpaid \$1.00. The book will teach you **HOW TO BREED, FEED & RAISE FROGS.**

MEADOWBROOK FARM, ALLENDALE, N.J.

Italian Bees.

The kind that do the hustling. Guaranteed to work on Red Clover. Spring Colonies furnished at \$5 each f. o. b. cars here, in your choice of Root or Daenbaker hives. The best comb honey live on earth. Also Root's hives and supplies at Root's prices. Catalogue for the asking. Write me anything you wish to know about bees and their management.

J. E. Thomasson, Bumpass, Va.

Mention The Southern Planter.

Phosphate Rock

(GROUND FLOATS)

Containing 65 per cent. to 72 per cent. Phosphate of Lime, analyzing 25 per cent. to 35 per cent. Phosphoric Acid, the balance being Lime.

This Rock is Sun-dried and is Ready for Immediate Application to the Soil.

Write for prices.

THOMAS D. CHRISTIAN,
Wyndham, Powhatan Co., Va.

Agricultural Lime

50 Cts. Per Bag of 200 lbs.

We make a specialty of all grades of

LAND LIME.

Write for prices and full particulars.

T. C. ANDREWS & CO.,
NORFOLK, - - VIRGINIA

Chemical Analyses

of MINERALS. FEEDING MATERIALS. WATER and other products made at reasonable rates. Correspondence solicited. J. E. WEEMS Ph. D., Crews, Va., Expert in Agriculture and Industrial Chemistry.

FRAZER

Axle Grease Best in the world.

Its wearing qualities are unsurpassed, as usually outlasting 8 boxes any other brand. Not affected by heat. Get the Genuine FOR SALE BY ALL DEALERS.

WANTED!

ALL KINDS OF

LIVE WILD BIRDS AND ANIMALS

Particularly Deer, Wild Turkeys, White Squirrels, Ducks, Swans, Bob White Quail, Grey Squirrels, Bear, Badger, Rabbits, Foxes, etc.; \$5 each paid for Wild Turkeys.

DR. CECIL FRENCH, Washington, D. C.

FARM TELEPHONES

BOOK FREE How to put them up—what they cost—why they save you money—all information and valuable book free—write to J. Andrus & Sons, 954 W. Water St., Milwaukee, Wis.

OPIUM

and Whiskey Habits cured at home without pain. Book of particulars sent FREE. E. M. Woolley, M.D., Atlanta, Ga., 103 N. Pryor St.

calf would have worried about each other, and the cow would have given her milk freely to the milker. If the calf has sucked the cow, it will require much more attention and coaxing now to get it to drink milk from a bucket, and it will worry and fret itself for the cow, and the cow will fret herself for the calf for some days. The cow should be carefully and cleanly milked twice a day, leaving not a drop in the udder. This will have the effect of causing her to give more milk, and continue to do this longer than if the calf is allowed to suck. The calf should be fed three times a day for the first fortnight, and then twice a day will be sufficient. Give it, the first week, about 2 quarts of milk at each feeding. Let this milk always be fed at the same temperature as when freshly drawn from the cow and be very careful to keep the bucket from which it is fed perfectly sweet and clean. Never overfeed a calf—always let it go a little short rather than be overfed. Feed the calf a pint more at each meal. The second week and another pint the third week. After the second week, part of the milk fed to the calf may be skimmed milk, and, gradually, the whole milk may be skimmed, thus giving to the owner the cream for butter making. When a considerable part of the milk fed to the calf is skimmed milk, some flaxseed gruel should be fed along with the milk to supply the deficiency in fat. This is made by simmering flaxseed in water on the stove until it is a thick jelly. A cupful of this jelly should be added to each feed of milk. After the second week, the calf should be tempted to eat grass by having a handful of fresh cut grass placed before it in its pen each day, and a little corn meal may be placed in a trough in the pen for it to lick up. It will soon learn to eat. Let it have milk to drink as long as it can be spared. This is nature's food, and plenty of it makes a strong, healthy calf.—Ed.

ONIONS.

Would onion seed, planted in a bed this summer or fall, do for sets? When ought they be planted out? Ought any fertilizer to be used when they are planted out? If so, what is the best kind? R. G. BURNET.

Louisia Co., Va.

Onion seed, intended to raise sets, should be sown in April or May in this State. The seed should be sown thickly in the drills and the plants should not be thinned out. The soil should be drawn from around them in June and they will then mature on the surface in July, making small sets about the size of marbles, which should be harvested in July, and, when dry, be stored on slatted shelves in a cool room or open shed. The tops



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R. A. LANCASTER, Jr., Richmond, Va.

should be cut off when thoroughly cured and the sets are then ready to be planted in the fall or early spring to make large onions next summer. The land growing sets ought not to be made rich with fertilizer, but should have sufficient fertility to make a small onion. Pearl or Queen and Yellow Danvers are the varieties usually grown. Queen sets should be planted in the fall as they do not keep well until spring. The others may be planted in the spring. Potato onion sets (the potato onion does not make seed) should be planted in the fall. Onion seed may be sowed in September to make plants to transplant into beds in the spring. The seed should be sowed where the plants can be protected in winter if the weather is severe.—Ed.

GRASS-FOR NAME—ALSIKE CLOVER.

I enclose herewith a sample of grass that I don't know any name for. Will you please give me the name? Also, please give me some advice as to sowing Alsike clover for a permanent pasture. I have a new ground that I want to sow to some kind of permanent pasture, and I don't know anything about Alsike clover, but have heard it highly recommended. I want to sow to Alfalfa but for fear of bloating stock. B. A. BISHOP.

Lee Co., Va.

The grass sent is tall meadow oat grass. It is one of the most valuable hay and pasture grasses than can be grown. Alsike clover is a hybrid perennial clover, valuable both for hay and pasturage. It should be sown in mixture with the grasses and will continue to produce crops for many years. It is finer in growth than the common red, the mammoth or sapling clover, and, therefore, more easily cured into hay and makes better grazing. Alfalfa is not a desirable crop for grazing purposes, as it is easily killed out, besides having a tendency to bloat stock. As a hay crop, it is the prince of all crops, as it will make three or four cuttings per year and do this for years without re-seeding, if the land is kept well fertilized.—Ed.

STORING EGGS FOR WINTER USE.

Can you give me a "never failing" recipe for preserving eggs? I should like to start in July to put them up for the winter months. MRS. C. H. C. Lowndes Co., Miss.

Water glass (sodium silicate) is the best preservative for eggs. It should be mixed in the proportion of 1 part of the water glass to 15 parts of water. Water glass can be had from most drug stores, and is not costly.—Ed.

ALFALFA.

I want to sow some Alfalfa this fall. The land upon which I expect to sow



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No. 98.—132 acres. Every acre fine land, smooth and free from stumps, washes and waste places. Nearly all in grass. Nice clear stream running through the place. Two acres in orchard. All kinds of fruit. Land is heavy chocolate soil, easy to work, and produces abundantly. Has 5 acres of timber, rest is cleared and in good state of cultivation. Situated on a macadamized pike leading in to Washington. 20 miles from Washington. Dwelling is a new 8 room house, handsomely furnished, with good coal well at the back door, new barn just completed, new corn crib, good granary, hen houses and hog house. Situated in an elegant neighborhood of refined Virginians, close to schools, churches and store.

Price, \$5,500. Terms to suit.

No. 108.—136 acres. 60 acres cleared, balance in good timber; some very heavy white oak. This land is all good and smooth, a little rolling. Watered by springs and one well. Located on the Washington and Winchester Pike, 23 miles from Washington, in Loudoun county. One-half mile to churches, schools, mill and store; mail delivered at the gate. Dwelling is a 5 room house in good repair. Large stable, shop, and other small out-buildings. Good young orchard in bearing, with all kinds of fruit. This farm is situated 6 miles from the railroad, but the market wagons pass every day, and afford a good market at the door for all kinds of farm produce. Price, \$1,800.

No. 109.—140 acres. 25 acres in good timber, balance cleared. Situated in Loudoun county, 3 miles from station, 6 miles from Leesburg. Land is a fine mahogany soil, adapted to all kinds of grain and grasses, in a high state of cultivation; 4 acres of apples, peaches, pears, plums and cherries. Land is rolling, with 35 acres of fine

bottom land; it is watered by running streams, spring and well. The dwelling is a nice 7 room house, with nice lawn, corn house, grainary, wagon shed, poultry house, all in good repair, two good barns, one 34x40 and the other 36x40. This is a handsome farm and very productive. Price, \$4,250. WM. EADS MILLER, Herndon, Va.

this Alfalfa I am now arranging to sow in peas and expect to cut the peas the latter part of August, then get it ready to sow the Alfalfa about the middle of September. The land is a little rolling, with a clay sub-soil and a light soil. Wish you would give me some information in regard to how to prepare the land, how to fertilize it and when is the best time. I have tried a little Alfalfa, but have not been very successful. Where is the best place to get the seed inoculated?

J. L. CAMP.
Southampton Co., Va.

In this issue, you will find advice as to preparing the land for and seeding Alfalfa. If, in preparing the land for the cowpea crop, you will plow the same deeply and prepare it well so as to secure a perfect seed bed, you may avoid the necessity for twice plowing the land, as after the pea crop comes off, the use of the disc and smoothing harrow and roller will prepare a good seed bed for the Alfalfa. You should apply either 300 or 400 pounds of acid phosphate, or 500 to 1,000 pounds of raw phosphate rock per acre to the land, previous to sowing the cowpeas, and then, after cutting the same for hay, apply 25 bushels of lime per acre and work this in with the disc harrow. Before sowing the Alfalfa seed, and after the lime has been worked in, apply 400 pounds of bone meal per acre and work in with the harrow. Inoculation is best and most certainly secured by the use of soil from an old alfalfa field, using 200 pounds per acre. Whilst the bacteria prepared by the chemist, or bacteriologist, gives, in many cases, complete success; yet, we have had many failures to secure a stand reported to us after its use, whilst we have never yet had a failure reported where the soil had been used. This inoculated soil is regularly advertised in our columns, but there are now few has not a field of Alfalfa two or three years old, from whom enough soil can be had, generally for the asking, to inoculate an acre or two of land. The work of seeding should not be delayed beyond September, so that the crop is not growing Alfalfa, and from any sections in our State where some one may get well started before the winter sets in. August and September are the two best months for seeding Alfalfa in middle and Eastern Virginia.

—Ed.

PUBLIC SALE OF A

FINE FARM.

Owing to my being called to Europe on important business, I will, on
TUESDAY, JULY 17, 1906

offer for sale on the premises, my farm of 263 1-2 acres, 8 miles southeast of Bedford City and 4 miles south of Lowry. This farm was the home of the late Wm. C. Goggin and is considered one of the most desirable farms in the county. It is in a high state of cultivation and has upon it a fine 10-room dwelling (in first-class repair), porches, etc., good barn, several tobacco barns, tenant's houses, splendid orchard of 2,000 fruit trees, all varieties; 200 acres cleared, mostly in good grass, well fenced, laid off in 18 fields, water in each field, balance in timber.

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Terms; reasonable cash payment, balance to suit purchaser.

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WATER MELON GROWING.

Please tell me in your July issue
how to make good, sweet watermelons,
what kind of guano to use? Some one
has said take sugar and make sweet
water, put into a cup, and with a string,
split the vine and insert the string and
this would syphon the sweet water into
the melon. What do you think of it? T. G. POOL.

Halifax Co., Va.

In our May issue, we gave advice in
our article on Work for the Month in
the Trucking and Garden section, for
growing watermelons. Two or three
forkfuls of good, rich farmyard manure
in each hill and a couple of handfuls
of a good, high-grade fertilizer added
will make the melons grow. Whether
they are to be sweet ones or not, depends
on the seed sown and not on the land on
which they are grown. Some land will
make, better sized melons than other land
from the same seed, but the quality depends
on the breeding of the seed sown and the
selection of the type fitted for the particular
land. You cannot fool nature by trying to
feed sweetness into melons, or any other
crop, by the artificial means of a string and
cup of sweetened water. The plant does not
feed that way, but by the combined action
of the roots and leaves, which elaborate
the plant food in the soil, and build it up
into the tissues of the plant and fruit.—Ed.

ROTATION OF CROPS.

In this section wheat has proved a
comparative failure for a good many
seasons, though promising a good crop
this year, but this is a fine corn and
grass country (Fauquier County) and I
want your advice as to the best crop
to follow corn. Can grass be seeded
in corn so as to be cut the next season?
Last year I seeded cow peas and followed
with a mixture, of Crimson Clover, rye,
oats and wheat and fallowed for corn,
which now looks very promising. I want
to sow cow peas at last working of corn.
Now, what next? Shall I lime and seed
in wheat or is there any way of getting
grass in—if I had enough shifts I might
let cow peas stand and put in grass in
the spring, but as it is I don't see my
way clear to missing both wheat and
grass crop for next year.

Fauquier Co., Va.

We have known brown clover and grass
to be successfully seeded in corn at the
last working and make a fine stand, but
put in in this way it is much better
adapted for a pasture than for a meadow,
as the corn stalk stubs are a serious
trouble when mowing unless the stalks
have been cut off very close to the ground.
We prefer to sow the crimson clover
and vetch, wheat, oats and rye mixture
in the corn stubble as you did and then
to follow this with a cow pea crop which
should

"RARVA" MEAT MEAL

85% protein. 7% Fat.

DOES NOT CONTAIN

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stallions, Jacks,
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too large to use same. W. B. GUERRANT,
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brood mares and Stallions for sale; 4 mares
(3 with colts at side) and Stallion, "Black
Beauty." E. E. English, Culpeper, Va.

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All ages mated not akin,
6 week pigs. Bred sows
Service boars, Guernsey
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A VETERINARY SPECIFIC.

14 years' successful use for
cure of heaves. \$1.00 per
bottle. 10 bottles of ex-
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have a good dressing of acid phosphate or raw phosphate rock, say 300 or 400 pounds to the acre of the acid phosphate or from 500 to 1,000 pounds of the raw phosphate rock per acre. The cow pea crop should be cut and made into hay in August and the land be then limed, say 25 bushels to the acre and be finely prepared for the pea crop then the disc, smoothing harrow and the roller will make a good seed bed for the grass and clover crop without reploting. Apply 300 or 400 pounds of bone meal to the acre before sowing the grass and clover seed and work into the land and then sow at least two bushels of mixed grass seed per acre, orchard grass, tall meadow cut grass. Herd's grass and meadow fescue make a good mixture and 15 lbs. of red and Alsike clover in equal parts per acre. This seeding will make a stand of grass if got in in August or September which will make a good hay crop by June of the following year and may usually be cut again in the fall or better be grazed lightly, and if top dressed with manure in the late fall or winter, make a good permanent meadow. Do not sow any grain in the grass and clover.—Ed.

CHINQUAPIN BUSHES.

Will you kindly tell me the best way to kill out a patch of chinquapin bushes? Will it do to cut them, and when is the best time?

Bland Co., Va. A SUBSCRIBER.

The chinquapin bush is very tenacious of life, and, therefore, not an easy subject to destroy. All trees and plants may be killed by not letting them leaf. If, therefore, the bushes are kept cut down all through the summer, and all sprouts cut off as they appear, the bushes will eventually die. They will, however, persist in trying to make growth for several years unless grubbed out of the land. This grubbing should be done during the fall and winter months.—Ed.

SWEET POTATO VINES AS A FEED.

Will you please give me some information as to the value of sweet potato vines for feeding purposes for stock. Also, if it hurts the development of the potato pulling or cutting the vines through the growing season.

JOHN GUNTHER.

Halifax Co., Va.

Sweet potato vines make a good feed, especially for dairy cattle, having a protein content of about 2.42 and a carbo hydrate content of about 7 per cent. They are best fed in the green state, after the potatoes have made the greatest part of their growth or they may then be made into hay, if the weather be fine enough to cure them. They do not make good silage. To cut the vines during the active

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Gombault's Caustic Balsam



Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for
Curb, Splint, Greasy, Capped Hock,
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Ringbone and other bony tumors.
Cures all skin diseases or Parasites,
Thrush, Diphtheria. Removes all
Bunches from Horses or Cattle.

As a Human Remedy for Rheumatism,
Sprains, Sore Throat, etc., it is invaluable.
Every bottle of Caustic Balsam sold is
warranted to give satisfaction. Price \$1.50
per bottle. Sold by druggists, or sent by ex-
press, charges paid, with full directions for
its use. Send for descriptive circulars,
testimonials, etc. Address

The Lawrence-Williams Co., Cleveland, O.

Fistula and Poll Evil



Any person, however inexperienced, can readily cure either disease with

Fleming's

Fistula and Poll Evil Cure

—even bad old cases that skilled doctors have abandoned. Easy and simple, no cutting; just a little attention every fifth day—and your money refunded if it ever fails. Cures nose eczema within thirty days, leaving the horse sound and smooth. All particulars given in

Fleming's Vest-Pocket
Veterinary Adviser.

Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durable bound, indexed and illustrated.

FLEMING BROS., Chemists,
280 Union Stock Yards, Chicago, Ill.

RELIEF IS SURE.

Spavin, Ringbone, Curb, Splint, all Lameness and Bony Enlargements cured quickly and permanently with

Kendall's Spavin Cure.



Spavin Cure a Wonder. Modernist, N. H., July 29/06.

DR. B. J. KENDALL CO.,
Greatest Relief in a two cent stamp for which please send your valuable horse book. I have used KENDALL'S SPAVIN CURE and it cured my horse. C. A. HANSELL.

Price \$1.00 per bottle. Greatest knowledge in the family use. All druggists. Accept no substitute. The great book, "Treatment of the Horse," free from druggist or Dr. B. J. KENDALL CO., Enosburg Falls, Vt.

No More Blind Horses For Specific Iriditis and Moon Blindness and other sore eyes, Barry Co., Iowa City, Ia. have a cure.

I HAVE

established what is undoubtedly one of the Richest and Truest reproducing strains of Actual Line bred

Columbian Wyandottes

In the United States they are destined to be the premier variety of America's Most Valued Breed.

MY

White Wyandottes

are excellent layers.

Why not procure pure New Blood from me this year and lay the foundation of a persistent, rough weather laying flock—the kind that pays.

Correspondence Invited.

COLFAX SCHUYLER,

BREEDER AND JUDGE,
Jamesburg, New Jersey.

FINE POULTRY.



I can supply your wants in this line and can save you money. Write me. I want a Cyprians Model Incubator and Brooder: will exchange poultry or a good Square piano.

JOHN E. HEATWOLE,
Box L, Harrisonburg, Va.

GLENVIEW ORPINGTONS.

Single Comb Buffs, exclusively. From June 1st, eggs for hatching from my best matings will be only \$1.50 per setting. Your opportunity.—B. S. HORNE, Kewick, Va.

S. C. Buff Orpington

Eggs for hatching, \$1 per 15; \$5 per 100, carefully selected.

POLAND CHINA PIGS

1 month old now, \$5 each. Satisfaction guaranteed. G. W. HARDY, R. F. D. 1, Jeffers, Va.



Valley Farm

BARRED ROCKS

S. C. B. LEGHORNS

500 CHICKS—some show birds
Some for utility.

CHAS. C. WINE, Mt. Sidney, Va.

EGGS

At reduced prices for July and August

My stock is all tested by the "Walter Hogan System" and no bird kept except those that give promise of large egg production. Some priming Cockerels coming on. RUFF ORPINGTON, B. I. RED and WHITE WYANDOTTES.

FOREST PARK FARM, Williamsburg, Va.
Charles W. Smit Jr., Prop.

growth of the tubers, will greatly limit, or practically prevent, the formation of tubers. You cannot make a root crop without leaves and vines to elaborate the material which goes to make up the content of the tubers and bulbs. But when the bulbs or tubers have practically made their growth and are only maturing in the ground, the vines and leaves have fulfilled their function and can then be cut or be grazed without injury to the roots.—Ed.

SILO AND ENSILAGE.

Please tell me in your July number all about a "Silo." I want to build one and know nothing about them whatever. My idea is to plant a five acre field in July with corn in rows 3 feet apart and 18 inches apart, work it one time good and then sow in between the rows soybeans and cowpeas half and half, and make my ensilage out of this. Will this do? When should it be put up? How often should it be cut? How packed? Should any water be used? I want my silo 10 feet by 18 feet in the clear. Will the ensilage do for colts with seed oats every day? Is there a book of any kind I can get that will give me full information on this subject, and where?

All the experiments I have made from The Planter have proven successful. Some of my neighbors, as well as others would be benefited if they would subscribe to The Planter. Halifax Co., Va. T. G. POOL.

In this issue, you will find an article dealing with the question of silo building. The question is a large one to deal with in a single article, and there are such a variety of silos built any one desiring to be fully posted on the subject ought to get one of the books published on the subject. Amongst the best of them, we reckon. Soiling Crops and the Silo, by Prof. Thomas Shaw; price, \$1.50; and Silos, Ensilage and Silage, by Dr. Manley Miles price, 50 cents. We can supply either of these books. The great point to be observed in building a silo is to have it deep in proportion to the diameter or width. The greater the depth, the better the silage and the less waste.

In reference to growing the crops for filling the silo, we would refer our enquirer to what we have said on the subject in our June issue. Whilst cowpeas may well and profitably be grown along with corn—and we advise this course—we do not advise the growing also of soybeans with the corn. This crop should be grown separately to get the best results, and be mixed with the corn or corn and cowpeas, as put into the silo. We thank you for the compliment paid The Planter. We always endeavor to carefully advise our readers so that

Glenn Farms
Verona, N. C.

We desire to announce to the public that we have purchased the entire BILTMORE STRAINS of S. C. and R. C. WHITE LEGHORNS and S. C. BROWN LEGHORNS, acquiring all their prize winners, interest and will for said breeds; in addition to the fine strains that we have been carrying, BARRED PLYMOUTH ROCKS, WHITE WYANDOTTES, LIGHT BRAHMS, WHITE and PARTRIDGE COCHINS, WHITE ROSTERED BLACK SPANISH, BRONZE TURKEYS and MUSCOVY DUCKS and MAMMOTH ROUEN DUCKS.

We will be glad to quote you prices on stock and eggs.

Poplar Hill Poultry Farm
SILVER LACED
WYANDOTTES

EXCLUSIVELY.
Fresh eggs for hatching from high scoring birds \$1 per 15; \$5 per 100
satisfaction guaranteed to every customer.

Dr. H. H. LEE, Prop., R. F. D. 4 LEXINGTON, VA.

Page Valley Poultry
Yards.

WHITE, BROWN and BUFF LEGHORNS, BARRED and BUFF PLYMOUTH ROCKS, R. I. REDS, ORPINGTONS, WHITE INDIAN GAMES, ROSE and SINGLE COMB MINORAS. State wants for first letter. C. L. SHENK, Box P, Luray, Va.

SPRING BROOK POULTRY FARM,
Culpeper, Va.S. C. B. LEGHORNS
and Black Minoras

exclusively. 15 and 2 lb. Cockerels, 50c. up according to quality. Eggs, 75c. and \$1. setting. Satisfaction Guaranteed.

ROSE COMB WHITE LEGHORNS
BUFF PLYMOUTH ROCKS

Stock for sale. Eggs in season.

FRED NUSSEY, - - Massaponex, Va.

EGGS FOR SALE.

From pure bred R. C. RHODE ISLAND REDS. Prize-winning strain at Chicago and Indianapolis Poultry Shows. \$1.25 per setting of 15 eggs. O. E. PETERS, Pamplia City, Va.

REDUCED PRICES ON EGGS

for balance of season. RUFF ORPINGTONS, 15 for \$1.00. BARRED ROCKS, 15 for \$1.00. Express paid on two settings or more when ordered accompanied with the cash.
-QUEENLAND FARM, Hagan, Va., R. F. D. 2, Box No. 7.

WALSH'S BARRED ROCKS

Foundation, Best Blood; my aim, improvement; results, gratifying.
Same choice breeding females for sale after May 15th. L. W. WALSH, Lynchburg, Va.

REDS.**THE THOROUGHBREDS.**

The three Reds for sale.

Red Polled Cattle.
Red Duroc Jersey Hogs.
Rhode Island Red Chickens

The Red Polled Herd is headed by the Royal Blooded Herodotus—weighs over 2,200 pounds and traces his lineage to sturdy Scotland.

The sire of Prince Harriman took first prize of Durocs at St. Louis in 1904.

Rhode Island Red Chickens—remarkable for their rich, red coloring, the cocks being magnificent in plumage. The eggs of this breed are large in size, fine color and good flavor. The chicks are all hardy, pullets mature at an early age.

Now ready for market.

Red Polled Bulls.
Red Duroc Jersey Hogs. pairs or three.
Rhode Island Red Chickens - Trio, Eggs.

Write me for prices.—JOHN H. HATFIELD, Harriman, Tenn.

EGGS--CHICKENS--PIGS**"ORPINGTON PLACE"**

S. C. BUFF ORPINGTON EGGS for hatching, \$1.00 for 15; 100 for 100.

Eggs from Imported Matings \$2 to \$3 for 15. 500 BIRDS for sale for next season's breeding. Special matings in pairs, trios or flocks. Poland China Pigs, \$5.00 to \$7.50 each. Complete Pedigree at these prices. Registration fee \$1 extra to each animal if wanted. Everything first class. Money refunded if not as represented. Address,

FAY CRUDUP, R. F. D. 2, Clarksville, Mecklenburg Co., Va.

REGISTERED**English Berkshire**

pigs, 8 to 10 weeks old, either sex, \$8 to \$10 each; dam DUCHESS 12456, Sire, BASIC CHIEF.

Black Devil and Red Horse

pit games; cocks, hens, stags and pullets. HIRAM BOWMAN, Meadow Brook Farm, Waynesboro, Va.

FOR SALE.

1 Registered JERSEY BULL, 2 years old. 1 No. 2 Sharples Separator, in perfect order. S. C. BROWN LEGHORN Eggs from choice Birds. I will make prices to suit you. RIVER VIEW DIARY Farm, Rice Depot, Va. C. M. Bass, Proprietor.

MARCH HATCHED**S. C. BROWN LEGHORNS**

Biltmore Strain. Pullets, 75c; Cockerels, \$1. J. H. BATCHELDER, R. F. D. 2, Charlottesville, Va.

DEATH TO LICE Lambert's "Dead Lice" kills all poultry vermin, lice on skin. "Death to Lice" is a sure cure for all lice on skin or on poultry. You get results immediately. Sample box 10c, postage 6c; 100 boxes, by express \$1.00.
THE O. K. STOCK FOOD CO.,
 661 Monon Bldg., Chicago, Ill.

if they adopt our advice in any matter, they may be certain to secure satisfactory results.—Ed.

STRYCHNINE FOR KILLING HAWKS.

When a chicken is fed strychnine to kill hawks, how long after will it be before it can be consumed by human beings without danger of poisoning? Also, whether it affects the eggs laid by such hen. Please give us a thorough explanation of this subject.

SUBSCRIBER.

Nottoway Co., Va.

Dr. Barringer, of the University of Virginia, writing on this subject in this Journal in July, 1903, says: "The evolution of the bird under the life conditions imposed on this earth, as we know it, would bring, among the first variations, a difference in feeding habits. Some would, in the struggle, naturally concentrate upon the vegetable seeds and grain foods, others would turn to insect life, others, more predacious, adapted themselves to freshly-killed flesh of other birds or animals, while some, once above such things, would satisfy themselves with putrid flesh. These things did not all come in a day, and hence, the first of the above groups became, in time, accustomed to and hence immune to the influence of any alkaloids or other poisons which might occur in the seeds and grain of their range, while even the last named would, in time, acquire freedom from the ills which others suffer from ingesting the ptomaines and other decomposition products of putrid flesh. In other words, vegetable feeders become tolerant of vegetable poisons, and flesh feeders indifferent to the toxins of flesh, while each is still more or less susceptible to the influence of things unaccustomed. In using the poison, it is best to use the crude drug in the place of the active principles for the reasons set forth below. The nux vomica of the druggist is the powdered seed of a small tree growing in India, and from this same button or seed the alkaloid strychnine is named. The first is slowly absorbed while the latter, notwithstanding its relative insolubility among alkaloids, would soon pass into the general circulation and tissues. * * * As regards the susceptibility of the guinea fowl, I know nothing of the facts. A guinea may be killed with strychnine, but, as a gaminivorous bird, he should carry safely enough to kill a hawk. A spring chicken will carry morphine enough to kill the man who eats him entire. One fact in connection with the guinea is suggestive, however. He is, as the name indicates, from the West coast of Africa, where, as far as I know, the strychnine and brucine bearing Longonia-cæa are unknown, while our fowls—

GRADE**Breeding Ewes,**

good ones and sure breeders. 5 REG. DORSET EWES and 3 REG. DORSET EWE LAMBS; REG. DORSET RAMS and 3/4 DORSET RAM LAMBS, fine ones and cheap.

4 TOULOUSE GEFFÉ and 1 pure EMBDEN GANDER.

Bloomfield Stock Farm,

Cartersville, Va.

**Edgewood Stock Farm.****DORSETS.**

Ram lambs for June shipment. If you are in the lamb business you need one.

J. D. Arbuckle and Sons,
 Greenbrier Co.,
 Maxwellton, W. Va.

DORSET SHEEP

We purchased at the World's Fair, at St. Louis, a ram that was second at this show. We now have some of his lambs, and they are the best that we ever raised, as good as we ever saw. There are flock headers among them that would please the most exacting.—J. E. WING & BROS.,
 Mechanicsburg, O.

BERKSHIRE GARDEN**...DORSETS...**

I offer some Bucks of the grandest breeding and 80 grade Dorset Ewes, bred to lamb this fall and early winter. Prices reasonable. SAM'L T. HENINGER, Burke's Garden, Va.

..... 4 REGISTERED 4

SHROPSHIRE BUCK

lambs from Imported Ewes, from the flock of Jno. Campbell of Canada, also a dozen or more Bucks about 15-16 pure-bred, out of fine Ewes by Registered Bucks. All March and April lambs and are as good as can be found; September delivery also.

Reg. ANGUS BULL, 2 years old and a cow 4 years old. For prices, etc., address S. S. HEBBURN, Church Hill, Md.

Cottage Valley**Offerings**

Several 15-16 GRADE ANGUS Bull Calves ready for service—will make fine bulls for grading up a herd.

A fine lot of thoroughbred O. I. C. pigs, both sexes, at reasonable prices.

BULL CALVES out of Shorthorn Cows, by Angus Bull.

Several registered Angus bull and better calves.

S. L. Wyandotte Eggs, \$1 for 15.
 W. M. WATKINS & SON Prop's, Saxe, Va.

Albemarle Co., Va., Feb. 17, '06.
 We would be lost without the Southern Planter.

A. GRAHAM & SONS.

READ THIS.

Now that the season is over, I will sell a handsome

Gray Mare

7 years old, weight 1600 lbs., and a fine

Bay Mare

3 years old with fine stallion colt at side by the great BUSTER; also the 4 year old, 1,750 lbs.

Steel gray stallion

THE CZAR, who traces to Brilliant 1,271 (755) on both sides. This is a good foundation for a pure-bred Stud of Percherons, especially that both mares are in foal again, one by THE CZAR, one by BUSTER.

Will sell the four for \$2,300 if taken in the next 30 days; 1-3 cash, balance in 1 and 2 years for a good bankable note.

I will also sell a few

Grand Shorthorns

1 3-year old Bull by Lord Lavender and 3 cows, 1 by Lord of Spring Creek, 1 by Lord of Weldon, 1 by Gov. Tyler; all reds and with calf again; \$500 for the four.

I will sell a

Younger Herd

of 3 heifers and a bull, reds, for \$300. All these cattle are bred in the purple.

I will sell Stallions, mares or cattle not named above if parties prefer others. Come and see what I am offering. Jno. F. LEWIS Lynnwood, Va., Lynnwood Stock Farm.

World's Greatest Harness Horse

French Coach Stallions and Mares

FROM

SEDGELEY FARM, Hinsdale, Ill.,

For sale, write for prices and plan.

INTREPEDE, by CHAMPION INDRE, in service.

Also breeding Jersey cattle, Duroc Jersey hogs and B. P. R. chickens. Visitors always welcomed.

WM. G. OWENS, Midlothian, Va.

Richmond Office, 1111 Cary St.

Horses For Sale Low.

One sorrel mare with flax mane and tail, seven years old, weight about 1,000 lbs., strikingly stylish, qualities perfect.

One chestnut hackney mare, seven years old, weight about 1,200 lbs., of fine action and fine appearance.

One pair bay mares, seven and eight years old, weight about 1,300 lbs. each, perfectly reliable in all harness.

One pair chestnut mares, seven and eight years old, weight about 1,150 lbs. each, very stylish and handsome drivers.

One pair black Percheron mares, five and six years old, weight about 1,500 lbs. each, qualities perfect.

One bay gelding, eight years old, weight about 1,450 lbs., a model worker.

One chestnut mare, 4 yrs. old, weight 1,000 lbs. Drives nicely; a beautiful animal.

W. M. WATKINS & SON, Saxe, Va.

all varieties of the Indian Jungle fowl—originated on the soil where we find strychnine-bearing plants most abundant."

How long after the eating of the strychnine it will take for the poison to be all absorbed into the tissues and eliminated from them so as to leave the meat perfectly free from the poison, we do not know, but should assume that the period required would not be long in a young growing chicken, unless a very heavy dose of the poison had been fed. This also would be the case with the eggs. The poison would likely all be eliminated from the fowl and its products in a few days after eating. The hawks are killed mostly by the poison which they get from eating the entrails and viscera. It is the habit of the hawk to eviscerate its victim as soon as killed, and thus it gets the poison before it has had time to be dissipated through the tissues of the fowl. Probably, if the hawk did not get the fowl before the poison had been long eaten, and thus absorbed into the tissues and partly eliminated, it would not suffer from it. Probably, some of our medical readers will be able to say how long after alkaloid poisons have been taken it is possible to find them in the tissues of the body.—Ed.

A LIBERAL PROPOSITION.

The Johnson & Field Mfg. Co., of Racine Junction, Wis., are making a novel proposition in order to introduce their machine for cleaning and grading all kinds of grain and grass seed. The proposition gives any one a chance to own a mill without costing them a dollar. From the testimonials and letters they submit, it looks as though it is an exceedingly easy matter to earn this mill. It will be well worth your while to send to them for their proposition.

WINDROW BALING.

The Little Giant Hay Press Co., of Dallas, Texas, are advertising in this issue their Simplex Baler, which is especially designed for Windrow or Shock Baling. This method of baling is undoubtedly a very economical way of handling forage crops. It saves the labor of hauling and stacking hay, pea vines, etc., and loss of feed from the consequent shattering of the leaves, etc.

Look up the advertisement and send for descriptive circular in regard to this machine.

Baltimore, Md., March 6, '06.

We always enjoy the Southern Planter as it comes from our good old State—Virginia, and we consider it one of the best agricultural and stock papers we take.

E. B. SMITH & CO.

Overton Hall Farm

Nashville, Tenn.

J. N. Overton, Prop., Reuben Gentry, Mgr.

The Stock Farm where INDIVIDUAL MERIT is the FIRST consideration.

JERSEYS.

both Imported and home-bred, backed by tested dams of highest merit as individuals

BERKSHIRES.

of the leading English and American Strains, backed by individual merit, second to none in the world.

Write for new descriptive circular giving prices and pedigree.

Address all letters to OVERTON HALL FARM, Reuben Gentry, Mfg., Sta. B., Nashville, Tenn.

BERKSHIRES.

of all ages for sale; sons, daughters or grandchildren of ELMWOOD CHIEF OF BILTMORE, COMMANDER'S BEAUTY, MASON OF BILTMORE II, MY DAISE OF BILTMORE II, LOYAL LEE'S CYNTHIA OF BILTMORE 4TH purchased from Biltmore Farms, and KING HUNTER and Berkshire of Biltmore, owned by Biltmore Farms.

BEAGLE PUPPIES FOR SALE. ROBERT HIBBERT, Strines Farm, Charlottesville, Va.

BERKSHIRES.

Send in your orders for pigs or shoats. We will ship you good individuals, superb in conformation, marking and health. We breed for the Farmer who wishes to improve his herd, or start a new one. If you can do so, come and see our stock.

W. J. Craig, Manager, Shawsville, Va.

BERKSHIRE

I offer some exceedingly choice young boars for sale;

BOARS.

by Imported Danesfield Tailor, 76490 and out of Biltmore bred sows. It will be hard to find better or cheaper stock

HENRY WARDEN, Fredericksburg, Va.

..... 5 REGISTERED 5

Yorkshire Boars

by Holywell Hatfield 2nd, for sale. Farrowed May 15th. BARNES COMPTON, Charlottesville, Va.

TWO

YORKSHIRE BOAR

pigs, farrowed April 26th, for sale; price \$10 each; out of Morven's Fancy, a pure-bred. Registered Sow.

S. C. W. LEIGHTON Cockerels, Maxwellton Strain, as good laying stock as can be found. W. W. Henry, Jr., Terryville, Va.

AT FARMER'S PRICES.

BEST HOG ON EARTH.

First check for \$25 gets a fine Registered year-old car; said to be cholera proof. S. M. WISECARVER, Rustburg, Va.

**COLLEGE OF AGRICULTURE
AND
EXPERIMENT STATION,
BLACKSBURG, VA.**

ANGUS BULL CALVES.

Two for immediate delivery. Personal inspection of their calves invited.

DAIRY CATTLE.

Holstein-Freischans, 2 bull calves of De KOL breeding for immediate delivery. Record of dam for last lactation period furnished.

JERSEYS. One bull calf for immediate delivery.

HOGS.

BERKSHIRE. A few boar pigs for July or August delivery.

SHEEP.

DORSETS. A few ram lambs for August or September delivery.

For prices and other information, apply to **JOHN R. FAIR, Agriculturist.**

GROVE FARM

R. F. D. Cockeysville, Md.
First Prize Herd
Guernseys

at Timonium and Hagerstown, Maryland (only place HERD shown).

**BULLS ONLY FOR SALE
OUR BERKSHIRES.**

were unbeaten at Timonium (Baltimore County), York Pa. and Hagerstown, Maryland, the only places shown in 1905. PIGS OF BOTH SEXES for sale.

C. & P. Telephone and Telegraph, 4th Lutherville, Md.

JAS. McK. MERRYMAN.

REGISTERED

Holstein-Friesian

Cattle; best butter producing strains; pure-bred **JERSEY CATTLE, CHESTER WHITE, BERKSHIRE, JERSEY RED HOGS, and all the LEADING BREEDS OF SHEEP, also DUCKS, POULTRY and TURKEYS.**

Write for my prices.

W. R. SELLECK, Huntington Harbor, L. I.

Swift Creek Stock and Dairy Farm
Has for sale a large number of nice young registered A. J. C. C.

**JERSEY BULLS
And HEIFERS.**



None better bred in the South. Combining closely the most noted and up-to-date blood in America. Bulls 4 to 6 months old, \$75. Heifers, same age, \$35. **POLAND CHINA PIGS, \$5 each.** Send check and get what you want.

T. P. BRASWELL, Prop., Battleboro, N. C.

Walnut Hill Herd

Aberdeen Angus Cattle

Calves, 3 months old and up, for sale.

J. P. THOMPSON, Prop., Orange, Va.

GOOD HOUSEKEEPING.

Brunswick Stew.

There seems to be a revived interest in this old-fashioned dish, and some discussion as to how it ought to be made. The following is an old rule, and, I suppose, a right one. The results from it are certainly as good as anything can be:

About four hours before dinner time, put on a pot with one gallon of water in it. Add two chickens or three squirrels and two good slices of bacon, let them boil until tender enough to remove the bone; then add a pint of butterbeans, one dozen large tomatoes, peeled and chopped, four Irish potatoes, also peeled and chopped. Twenty minutes before serving, add nearly a quart of tender corn and a cup of very dry bread crumbs, salt, pepper and some red pepper, chop the meat and return it to the stew and add half cup of butter. Serve as you do soup, in a tureen.

Gumbo.

We are very little familiar with this dish, but, in the South, it makes a large part of the dinner on almost every table for a good part of the summer. Put two slices of fat bacon in a pan and let them fry, when the grease begins to run, add one onion sliced thin; have a chicken ready and fry this with the meat with a bunch of parsley; when it is brown, remove it and put into the pan three pints of sliced okra, stir constantly, and when it is soft, add a quart of tomatoes, chopped; let them cook, well covered, for twenty-five minutes, then put the whole, with the chicken, into a stew pan with three quarts of boiling water; add salt, pepper and red pepper, and boil two hours; add butter just before taking off the fire; serve in a tureen and always have boiled rice to eat with it. In Louisiana, they put a large mound of rice in the soup plate and pour the gumbo over it.

Apple Custards.

Have the apples stewed with the sugar, quite dry. When they are cold, add a cup of butter, which must be creamed, and the yolks of six eggs, beaten light; season with grated lemon peel and nutmeg, bake in rich crust and when done, spread over the top the whites of the eggs beaten with a cup and a half of sugar and the juice of the lemon. Set back in the stove and brown. Serve cold, with or without cream.

Cocoanut Pudding.

To one grated cocoanut, add the whites of eight eggs, beaten very light, two cups of sugar, half cup of butter creamed with the sugar, lemon juice, and a dusting of nutmeg. Mix well and bake in small patty pans on rich crust.

Orange Ice.

To make six quarts of ice, take

**Poland China
Pigs**

Some fine ones, young sows bred, young boars and pigs. No better breeding in the United States. My herd boars have been sired by J. H. Sanders, Lookmeover, Perfect Know, Froud Perfection, Corcoran and High Roller, the greatest prize winners of the breed—my sows have been as carefully selected.

RED POLLED CATTLE. Fine good young bulls. Will sell a few cows and heifers. **ARROWHEAD STOCK FARM, Charlottesville, Va., SAM'L B. WOODS, Prop.**

Poland Chinas.

Sunshine and Perfection Blood. Here a fine lot of Early spring pigs now ready for shipment. \$6.00 each, can mate them, no other for breeding. All pigs eligible to registry and first class. Buft Plymouth Rock, S. L. Wyandotte and Brown Leghorn Eggs for hatching \$1 for 15.—**E. T. ROBINSON, Lexington,**

THOROUGHERED

**Berkshire Boars,
Jersey Bull Calves,
Dorset Buck Lambs.**

Sire of Calves, **FLYING FOX 65456**, son of Flying Fox who sold for \$7,500 at the Cooper sale 1902.

All stock in best of condition and guaranteed as represented.

F. T. ENGLISH, Centreville, Md.

ELLERSLIE FARM—

**Thoroughbred Horses
AND SHORTHORN CATTLE,
Pure Southdown Sheep
and Berkshire Pigs.**

FOR SALE, **R. J. HANCOCK & SON,
CHARLOTTESVILLE, VA.**

DEVON HERD, HAMPSHIREDOWN FLOCK
ESTABLISHED 1884. ESTABLISHED 1880.

**DEVON CATTLE
BULLS and HEIFERS,
Hampshire Down Sheep,
RAMS and EWES.
ROBT. J. FARRER, Orange, Va.**

SPRINGWOOD SHORT HORNS.

Some fine Red, White and Roan Bull Calves, 4 to 11 months old, of most excellent breeding, at low prices.

POLAND CHINA PIGS, sired by son of 2nd prize pigged Boar, St. Louis World's Fair. Correspondence solicited. **W. T. THASHER, Springwood, Va.**

ROSE DALE HERD...

Aberdeen Angus

Top notch young registered Bulls our specialty. A few heifers to offer with but not akin. We send out none but good individuals. Correspondence and inspection of herd invited. **ROSE DALE STOCK FARMS Jefferson, Va.**

Mention The Southern Planter.

COME AND SEE AS GOOD PERCHERONS

of both sexes as France can export, no \$3,000 monstrosities, or the "Culls" of Europe, but good, big, straight horses, at figures that will pay the purchaser.

SHORTHORN

cattle as good as the best at reasonable prices.

BERKSHIRES

of both sexes. A few Kentucky saddle horses, good ones. JOHN F. LEWIS, Lynnwood Stock Farm, Lynnwood, Va.



Salt Pond Herd Duroc Jerseys.

PAUL J. 21624, son of Oom Paul, head of herd. Bows by Red Kover, Jumbo, Longfellow and other noted hogs. A choice lot of Pigs at reasonable prices, ready to ship.
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Southdown Sheep and ESSEX PIGS

A fine lot of Southdown lambs, pure stock Essex Pigs ready for shipment in June, July and Aug. Your orders solicited.
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FROM IMPORTED STOCK. We give the finest breeding and excellent individuals at reasonable prices. You'll get the best selections by writing early.

P. R. Pock and S. C. B. Leghorn Eggs, \$1 per 17.

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All readers of this paper who are interested in this breed of cattle are invited to write me
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Sir Thomas Netherlands, for sale to avoid in breeding: 3 years old. J. H. BOELTE & SONS, Redfield Stock & Dairy Farm, News Ferry, Va.

Lunenburg Co., Va., Mar. 10, '06.
The Southern Planter, like old wine, grows better as it grows older. Long may it live to help us clockknockers through life.
L. J. HAMLIN.

Hanover Co., Va., Mar. 10, '06.
I consider the Southern Planter far in the lead of any farm journal I have ever read. I get much valuable information from its pages.
H. CARTER REDD.

eight oranges and three lemons; grate the oranges very carefully, taking off only the yellow outside rind, also grate the lemons. Mix four heaping tablespoons of cornstarch with a cup of cold water, and pour three quarts of boiling water over it, stirring all the time to prevent lumping; add two pounds of sugar to this and the grated rind. When it is cold, add the juice of the oranges and lemons and enough water to fill the freezer.

Yellow Cabbage Pickle.

The cabbage for this should be scalded in salted water until the leaves are limber enough to be turned back; then it should be drained and put into large dishes or racks and salt sprinkled between the leaves, (the cabbage heads should be quartered). Keep it in the hot sun until nearly dry, then shake off all the salt and put it into cold vinegar with a little turmeric for ten days. Then drain it dry. Boil two gallons of vinegar, five pounds of brown sugar, four ounces of white pepper, four ounces of whole allspice, four ounces of white mustard seed, four ounces of black mustard seed, two ounces of turmeric, two ounces of ginger, two ounces of floured mustard, three ounces of garlic, or onion, three ounces of grated horse radish, two gills of celery seed and four sliced lemons, the seed removed. Fill your jars with the cabbage and pour the scalding vinegar over it. When cold, tie up, and do not attempt to use it for six months.

Green Cucumber Pickle.

Keep the small cucumbers in brine to float an egg for nine days, then soak them in clear water for two days, changing the water several times. Put them in a brass kettle with layers of grape leaves and covered with weak vinegar, and let them simmer until they are a bright green. Take them out and drain off all this vinegar, and pack a two gallon jar nearly full, sprinkling among them as you pack them two tablespoons each of white mustard seed, black mustard seed, whole black pepper, celery seed, and one tablespoon each of cloves and cracked nutmeg, three pieces of cracked ginger, three pods of red pepper, six inches of cinnamon, one cup of grated horse radish. Put three quarts of vinegar and five pounds of brown sugar into a pan and let it boil and pour scalding hot over the jar of cucumbers. Heat the vinegar three times and pour it over the cucumbers. Ready to use in a month.

Tomato Soy.

To a peck of firm, green tomatoes, sliced, add a pint of chopped green peppers, and put in a jar with a sprinkling of salt between the layers; tie a cloth over the top of the jar and turn it upside down on a rack and let it drain for a night. As you put it into the kettle, squeeze, to get perfectly

WANT ADS.

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WANTED—TO CORRESPOND WITH some one who wants a working partner, or who has a big farm to lease for a term of years, either on shares or for a yearly cash rental. FRANK S. FARQUHAR, North Yakima, Wash.

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HAMPHIREDOUN SHEEP FOR SALE: rams, ewes and lambs; also Large Yorkshire Pigs of the right kind at attractive prices. Write for circular. J. D. THOMAS, Round Hill, Va.

DORSETS AT FARMERS' PRICES: Yearling Bucks, \$12; ewes, \$10; Lambs, Bucks, \$8; ewes, \$6; also Registered Hereford Cattle, both sexes; satisfaction or no sale. L. P. NELSON, Jr., Box 129, Culpeper, Va.

WANTED. TWO 2-YEAR OLD SHROPSHIRE Bucks; must be good individuals. S. M. LYBROOK, Stuart, Va.

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B. T. PARROTT.

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I think the Southern Planter is the leading agricultural paper of the South.
T. K. TENCH.

Goochland Co., Va., Mar. 1, '06.
No farmer can afford to be without your valuable paper.

R. H. LAWRENCE.

dry. Mix with it one tablespoon of allspice, one and a half of cloves, two of celery seed, two of mustard seed, one of cracked ginger, one heaping of black pepper, a quart of sliced onion, two pounds of brown sugar. Cover with good vinegar and cook slowly for three hours. Keep in glass jars.

CARAVEN.

DEVELOPMENT OF MAIL ORDER BUSINESS.

Previously, mail order buying has been confined largely to Western cities, but Richmond, Va., now has a mail order house based on the line of the successful houses. There is no reason why Richmond, being situated one-half way between Maine and Florida, should not successfully compete for the Eastern coast trade.

The Spottless Company, Inc., Box 364, Richmond, Va., began February 2, 1905, and has since grown rapidly. It is advertising extensively, and has recently gotten out a catalogue to which they intend to add, year by year. This catalogue contains practically everything useful on the farm and in the home, such as buggies, wagons, harness, paints, farming utensils, etc., and even groceries; and its prices are designed to compete with the Western mail order houses.

This should sound pleasant to the farmers of the South because it allows them to buy from Richmond and save a great deal in freight. Most mail order purchases are sold, freight collect, and the freight from Chicago to the South is, of course, much higher than from Richmond to any Southern points. For example, a farmer in buying a wagon from Richmond would save probably two or three dollars alone in freight as compared with buying it from Western cities.

CURES HIS OWN AND HIS NEIGHBORS' HOGS.

Mentor, Green Co., Mo.
Dr. Earl S. Boston, Boston, Mass.

Dear Sir:—It affords me great pleasure to write you of the good work that your Liniment is doing in this part of the country. I have used it for many years with the very best results. Four years ago, I lost two head of horses with inflammation of the bowels. On the third horse that took sick, I tried Sloan's Liniment, and she got well immediately, and has been in her place at work every day since.

I have found Sloan's Liniment a sure cure for hog cholera. Whenever my neighbors' hogs have cholera, I treat them with Sloan's Liniment and it is not long before they are all right again and squealing for their feed.

M. P. SAMUEL.

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The Finest Herd of Registered Holsieins in the Southern States

COWS—THE JESSIE VEEMAN FAMILY

headed by that grand individual, JESSIE VEEMAN A., and including seven of her daughters justly comes first.

JESSIE VEEMAN A. is admitted by the best judges to be one of the finest types of the Holstein cow, both in conformation and productive ability. Many honors of the show ring have fallen at the feet of this "Bovine Queen." In 1903 at the New York State Fair, she was adjudged CHAMPION COW. Official record 26.25 lb. butter in 7 days with an average milk production of over 83 lb.

JESSIE VEEMAN C., the oldest daughter, closely resembles her mother in outward conformation. She carried off the highest honors at the New York State Fair in 1905, against strong competition. She has just completed a record of 20.4 lb. butter in 7 days.

JESSIE VEEMAN HENGVERVELD. This is one of the greatest producers of this wonderful family. At 3 years old, she produced 16.8; at 4 years, 22.33; and at 6 years, she produced 21.4 lb. of butter in 7 days, the last record being made in very hot weather and under unfavorable circumstances.

The other five daughters are individuals of the highest merit, both in daily conformation and in individual excellence.

FRONTIER JESSIE VEEMAN, 19.4; JESSIE VEEMAN DIONE, 14.98; BERYL JESSIE VEEMAN A., (at 2 years), 9.68; JESSIE VEEMAN A. 2D (at 2 years), 14.49; JESSIE VEEMAN DE-KOL (Untested).

JOE BACH JOSEPHINE

another famous member of the herd, is one of the five cows that won the "dual purpose test" at St. Louis in 1904. Her A. R. O. Record is 23.83 lbs. butter in 7 days.

HULDA ABBEKERK DE KOL, granddaughter of DE KOL 2ND, has just completed a record of 19.87 lb.

SCOTIA 4TH, A. R. O. Record, 20.18 lbs. butter in 7 days.

NETHERLAND FANCY ROSETTA, A. R. O. Record, 20.53 lbs. butter in 7 days.

COUNTRESS DORINDA DE KOL, A. R. O. Record, 20.37 lbs. butter in 7 days.

PRINCESS KORNDYKE DE KOL. This is a very fine individual whose breeding shows a combination of the blood of DE KOL 2ND, BELLE KORNDYKE, JESSIE BEETS, and NETHERLAND HENGVERVELD. The average official record of two of her nearest dams is 21.43 lbs. butter in 7 days.

AALTJE DE KOL, 17.33; Shadeland Dulcibel 4th, 16.427; ANZALETTA PAULINE PAUL 2D (at 2 years), 10.148; MANOR GRACE PIETERTJE (at 1 year, 9 months), 9.16; PAISY PEOPLES, 19.48; LADY OF BURTON AAGGIE, 10.79; LADY OF HILLSIDE (Untested).

BULLS.—PONTIAC CALYPSO'S SON.

This is one of the finest of the "IMPERIAL PONTIACS," partaking at once of the individual excellence, both in conformation and production, of his two wonderful grandfathers, HENGVERVELD DE KOL, and DE KOL 2ND'S PAUL DE KOL. His dam, PONTIAC CALYPSO, is one of the greatest producers of the daughters of HENGVERVELD DE KOL. As a 3-year-old, she produced, during the hottest weather of July, 23.5 lb. of butter in 7 days. She is one of the ten daughters of HENGVERVELD DE KOL who with first calf produced an average of 17.75 lb. butter in 7 days. Another half-sister has a record of 28.41.

His sire, BERYL WAYNE'S PAUL DE KOL, has over 40 A. R. O. sisters, one of which is AAGGIE CORNUCOPIA PAULINE, the WORLD'S CHAMPION COW (34.31). He is the sire also of SHADYBROOK GERBEN PARTHENA 4TH, who holds the world's record for production under 2 years old, having produced at 1 year, 8 months, in 7 days, 17.86 lb. butter. The three nearest dams of this young bull have records averaging practically 26 lbs.

AAGGIE CORNUCOPIA MERCEDES COUNT

represents a line of breeding peculiar because of its greatness. On each side of this young bull's breeding is a WORLD'S CHAMPION, AAGGIE CORNUCOPIA PAULINE and MERCEDES JULIP'S PIETERTJE, with a combined record of 62.67 lb. butter. He traces five times to the grand old cow of the breed DE KOL 2D, who has over 100 granddaughters with records averaging 19.6. This bull has a fine conformation and promises to make as great a reputation as his ancestors.

KING ORMSBY FRIEND

This bull is an individual of exceptionally good conformation, fine enough to show in any company, and good enough to be at the head of any herd. His dam, PAULINE DE KOL MUTUAL FRIEND, produced under 2 years old, in an official test, 16.22 lb. of butter in 7 days; and again, as a 3-year-old, has placed to her credit 19.55 lb. She was from DE KOL KONINGEN PAULINE, (23.301), and sired by the youngest son of DE KOL 2D, DE KOL 2D'S MUTUAL PAUL, the youngest bull of the breed having a 25 lb. daughter. KING ORMSBY FRIEND was sired by DUCHESS ORMSBY BUTTER KING. His dam, DUCHESS ORMSBY, made an official record of 24 lb. 4.4 oz., her milk showing 5.44 per cent. of fat.

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HINTS BY MAY MANTON.

The plain shirt waist, or "shirt," as our English cousins call it, is one of the latest decrees of fashion and is especially well liked by the athletic girl. It suits admirably well for golf, tennis and all out-door sports of the sort, but is by no means confined thereto as it makes a most satisfactory waist for general morning wear. This one is made of white linen, but Madras, French pique and all the season's waistings are equally appropriate and figured as well as plain materials will be much worn.

The waist consists of the fronts and the back, all of which are plain. The left front is supplied with a patch pocket and there is a regulation box



5358 Plain Shirt Waist,
34 to 44 bust.

plait at the front edge. The sleeves are in shirt style and there is a deep roll-over collar at the back.

The quantity of material required for the medium size is 3½ yards 21, 3¼ yards 27, or 2 yards 44 inches wide.

The pattern 5358 is cut in sizes for a 34, 36, 38, 40, 42 and 44 inch bust measure.

The princesse skirt has taken a firm and apparently permanent hold upon fashionable fancy and is shown in infinite variations. This one is plain at its upper portion but full at the lower and is adapted to almost everything seasonable. It can be made plain, as in this instance, with trimming of banding, with braid applied in some more or less elaborate design, with insets of lace, or, indeed, in any manner that may be liked. As

Tuleyries Farm Herefords

BUY EASTERN-BRED HEREFORD CATTLE

I OWN ACROBAT and CHRISTMAS BEAU DONALD and have for sale, BULL CALVES and HEIFERS by them; also pure-bred BERKSHIRES and HOLSTEINS.

COME SEE THEM.

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HIGH CLASS HERD.
Prices Very Reasonable.

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RED POLLED HEIFERS

for sale, also 2 REGISTERED BULL CALVES.

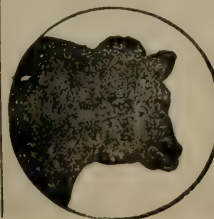
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BERKSHIRES.

Several nice litters; can furnish pigs not akin.

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is not surpassed either in breeding or individual animals by any herd in the East. At the head of our herd is

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the son of the great \$9,100 Prince Ito. Females of equally choice breeding. Write your wants. Remember, we take personal care of our cattle; keep no high priced help; incur no expense of exhibiting; all of which enables us to offer stock at equitable prices. Send for pamphlet. 15 Bulls from 2 to 15 months old for sale.

MYER & SON, Prop.

Bridgeville, Del.

illustrated, the material is white serge simply stitched with belding silk, but the heavier washable materials are suitable quite as well as those of wool and silk.

The skirt is cut in nine gores, which are so shaped as to provide the fashionable flare at their lower portions, while the fullness at the back is laid in inverted plaits. If the corselet is not liked, it can be cut off and the upper edge finished with a belt.

The quantity of material required for the medium size is $11\frac{1}{2}$ yards 27, $6\frac{3}{4}$ yards 44, or $5\frac{3}{4}$ yards 52 inches



5346 Nine Gored Princesse Skirt,
22 to 32 waist.

wide, if material has figure or nap; $7\frac{1}{2}$ yards 27, 5 yards 44, or $4\frac{1}{4}$ yards 52 inches wide, if it has not.

The pattern 5346 is cut in sizes for a 22, 24, 26, 28, 30 and 32 inch waist measure.

We can supply these patterns at 10 cents each.

SOUTHERN PLANTER, Richmond, Va.

FINE FOR RACE HORSES.

Wellington N. Z., Nov. 2, 1905.

Dear Sirs:—I have found your Spavin Cure a very fine remedy for all sorts of lameness in horses and I am never without it. My first experience with it was with a race horse which I thought was completely broken down, but, after using your Spavin Cure for a few weeks, he was all right and raced soundly afterwards.

Yours truly,

E. J. WISEBEY.

Pittsylvania Co., Va., Mar. 22, '06.

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J. T. MOTLEY.

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The spray calendar for both vegetables and fruits will be found useful to every gardener and fruit-grower. Directions are given for making and applying the principal insecticides and fungicides used in garden and orchard.

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POLAND CHINAS and SHROPSHIRE



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SHROPSHIRE RAMS. A Choice Lot,

Sired by my fine ram, Ingersoll, 774. I bought this ram of the Niagara Stock Farm, N. Y., and having used him 2 years, will sell to avoid inbreeding. All stock shipped subject to being returned at my expense if not satisfactory.



J. F. DURRETTE, Birdwood, Albemarle Co., Va.

WASHINGTON NOTES.

Meat Inspection Progress.

The House Committee on Agriculture, on Wednesday, adopted the meat inspection provisions to the Agricultural Department appropriation bill, as a substitute to the Beveridge amendment, as adopted by the Senate. The House amendment, it is declared by the committee, will insure that American meats and meat products are healthful, clean and in every respect wholesome and fit for food.

The important features of the legislation are that it places the cost of the inspection on the government and makes an annual automatic appropriation of \$2,000,000 to pay the expenses. It requires a government label as a passport for all meat and meat products which enter interstate commerce, and, in addition to this label, a certificate of purity to the carrier and to the Secretary of Agriculture for all such products which enter foreign commerce. To secure this label, the product must be handled in accordance with sanitary regulations to be prescribed by the Secretary of Agriculture who is authorized to employ an adequate corps of efficient inspectors to supervise the enforcement of his regulations.

It prohibits the use of preservatives or chemicals in the preparation of meat foods, which are deleterious to health, and leaves the matter of determining this question to the Secretary of Agriculture. He is also empowered to draw up sanitary regulations and enforce complete sanitation as to all buildings, whether slaughter houses or canning establishments.

This substitute for the Beveridge amendment, while favorably considered by most of the members of the House Committee on Agriculture, and believed by that committee to be more effective than the Senate regulations, is hailed by the packers as a victory for them, inasmuch as the cost is placed on the Government, labels on canned goods are not to be dated, permission is granted to use preservatives, and there is a court review provision.

President Roosevelt has emphatically

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Southdown and Shropshire Sheep, Berkshire Hogs, B. B. R. Game Chickens, Fox Hound Puppies.

We now have very few Berkshire pigs, but what we have are the right kind. Have only a limited number of sheep for sale, but some of these are fine bucks ready for service.

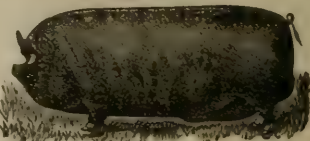
Our hounds are pure Walker strain. They have plenty of speed as well as the staying qualities and ARE FINE HUNTERS.

We have won more premiums on sheep and hogs at State and County Fairs, than all other breeders in Virginia, combined.

H. A. S. HAMILTON & SONS, Shadwell, Va.

Fancy Berkshire Pigs

from directly imported sows and boars, practically imported blood for you at one-third usual price for such breeding; half imported and half American breeding at pocket-change prices—just a little money order—no bank account needed for these. Extra fine open and bred gilts



PEKIN DUCKS and EGGS for sale. S. C. Brown Leghorn eggs cheap. Barred Plymouth Rock eggs cheap.

Absolutely pure—all of them. **Thomas S. White,** Fassifern Stock and Poultry Farm, Lexington, Va.

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Holstein Friesian Cattle. Berkshire Hogs. Barred Plymouth Rock Cockerels.

GOOD STOCK AT REASONABLE PRICES.

I have recently added to my Berkshire herd the Imported Boar, **GLENBURN CATCH,** 84704. You are sure to want some of his get.

T. O. SANDY, Prop. Burkeville, Va.

POLAND CHINA, TAMWORTH, BERKSHIRE

Pigs at Farmer's prices. Also Bred Sows and Service Boars. All stock entitled to registry and satisfaction guaranteed.

APPLY TO

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Midsummer Bargains In Pure-Bred Poultry.

- 20 1 and 2 year old S. C. Brown Leghorn hens at \$1 each.
 5 S. C. Brown Leghorn Cocks at \$1.50 each.
 10 Rose Comb Brown Leghorn hens 1 and 2 years old at \$1 each.
 12 Blanchard Strain White Leghorns at \$1.25 each or \$12 for the lot.
 2 S. C. White Leghorn yearling hens Wyckoff strain \$12 per doz.
 4 S. C. White Leghorn Cocks Wyckoff strain at \$1.50.
 1 Breeding Pen of R. C. WHITE LEGHORNS, 3 hens and cockerel, \$10.
 1 Pen of Barred Plymouth Rocks; 5 hens from Gardner & Dunning Strain; Cock direct from A. C. Hawkins. This pen if sold at once for \$18. (Just half price.)
 1 Pen BUFF COCHIN BANTAMS, 3 hens and cock for \$5.
 18 Duston White Wwandotte, 1 and 2 year hens, \$15 per doz.
 10 Rhode Island Red hens, a bargain at \$2 each.
 10 Buff Plymouth Rocks at \$1 each.
 FOX TERRIER DOGS—GREAT RAT EXTERMINATORS, TWO EXCEPTIONS, ALL FINE, litters now ready for shipment; Males \$5 to \$10. Females \$2.50 to \$8. 2 Bred Bitches at \$8 each.
 All orders for Poultry advertised above must reach us during the month of July. Satisfaction guaranteed. J. HARRISON YATES, Dept. P., Chantilly, Va. Telegraph and Express Station, Herndon, Va.



ly announced his disapproval of this substitute meat inspection amendment, and, in a letter to Representative Wadsworth, Chairman of the House Committee, has made the statement that if the bill should pass with the House substitute, he might feel disposed to withhold his signature, but should he sign the measure, he would do so with an added memorandum stating that, in his opinion, such a measure is entirely inadequate to meet the needs of the occasion. The members of the House Committee feel that the President has not fully read the House substitute, as some of the objections raised by the President seem to be fully covered, in their opinion, in the House measure. Nevertheless, members of Congress are on the uneasy seat, as they were just settling down to their regulation end-of-the-session gait, when the President's letter kicked up a lot of dust around the Capitol, giving signs of a long-drawn-out struggle, which might not terminate before "dog days" are over.

(There have been some changes in the above since this report, but not quite definite enough to insert here.—Ed.)

Meat Scandals Abroad.

In the midst of British alarm over the startling revelations of conditions at Packingtown, the public of Great Britain have had their attention called to situations which seem to exist in their very midst. An inspection in the employ of the Borough of Camberwell has made revelations which the English papers publishing them say, show that the indignation poured out on Chicago might as well be turned to give an impetus to the movement for the removal of horrible abuses at home.

Among the allegations made by the inspector is one that a firm engaged in manufacturing tinned "delicacies," such as potted chicken and tongue, had acquired a large quantity of old tinned meat, which was worked over with other materials in circumstances too loathsome to detail. Thousands

BERKSHIRES.

FOR SALE AT PRESENT;
PIGS OF BOTH SEXES

6 Boars, 6 to 12 months old.

4 Sows, 6 months old.

4 Bred Sows, 8 months old.

All animals are choice specimens of this most noted breed.

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SHEEP, HOGS, AND POULTRY.

Special Offerings for July.

CHOICE REGISTERED

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SERVICE RAMS AND BRED EWES.

Lambs of both Breeds and all of the best Imported Strains. Now is the time to order your Ram for Service this Fall.

Four Grand September 1905 BERKSHIRE BOARS, weight over 250 lbs. Price \$32.00 each. Younger Boars, Bred Sows and Pigs, 2, 3, and 4 months old. Fine Service Boars, Bred Sows, and Pigs all ages of Chester White and Poland Chinas.

Some Grand Pekin Ducks; mated from the best strains, \$2.50 each. Now is the time to order your birds for next season.

Choice matings of Plymouth Rocks, Wyandottes, R. I. Reds, Buff Orpingtons, Buff, White and Brown Leghorns, Minorcas and others. Any lot of Brown Leghorn prize winners. Write for prices. Eggs for hatching. 200 pair Homer Pigeons; a grand lot of birds. \$2.00 per pair in lots of five or more pairs.

Address, JAMES M. HOBBS, 1521 Mount Royal Avenue, Baltimore, Md.

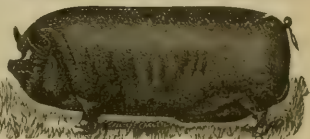
GLENBURN BERKSHIRES

Pigs out of splendid IMPORTED and American sows, and by grand IMPORTED boars, including LOYAL HUNTER, the largest and best boar ever imported into this country. These represent the best herds and greatest winners of England and America. Have recently added to our herd, two splendid daughters of LORD PREMIER in pig by PREMIER LONGFELLOW, grand champion of the World's Fair. Also two superb COMBINATION Sows in pig by the great MASTERPIECE, the highest priced boar of the breed. A. J. C. C. Jersey cows, bulls and heifers for sale. Mention this paper.

J. D. KIRK, Roanoke, Va.

Berkshire Bargains

3 gilts and 1 boar which were kept for the show ring this fall; farrowed Aug. '05; perfect beauties; price, \$25 each; also 5 pigs, 3 mos. old, intended for same purpose, at \$10 each; am selling to make room for spring litters. BRIDLE CREEK STOCK FARM, W. B. Fleming, Prop., Warrenton, N. C.





BREEDING EWES. STOCK SHEEP.

I am receiving fresh consignments of
BREEDING EWES and FEEDING LAMBS and WETHERS
every day from now till October or November.

If you want a choice selection, send your orders in early.
If you want early lambs, now is the time to buy your *Breeding Ewes*.
The quality of my sheep this year was never better and I have them
at all prices.

Send for descriptive Catalog and Price List. I can please you on any
thing you may order. I sell on time to responsible parties if they desire. Write for terms. Address

P. O. Box 204.
Office Phone 993.
Residence Phone 5069.
Telegraph Address: Union Stock Yards.

ROBERT C. BRAUER,
Commission Salesman of
Cattle, Hogs, Sheep, Lambs and Calves.
Union Stock Yard, Richmond, Va.

of tins of putrefying and poisonous meat were seized from this firm. Large quantities of diseased meat, it is said, are brought from the country and sold in London constantly, and even the London slaughterhouse butchers, in spite of the inspectors, manage to slaughter and put on the market the carcasses of tuberculous and other diseased animals, and that all sorts of refuse and dirty scraps are put into London-made sausages.

From Germany comes the statement that efforts have been made in Denmark to send bad meat into Germany, and similar meat has been brought into the fatherland from Russia. One shipload of animals suffering from Siberian plague were brought from Russia to Stettin. A great number of the veterinarians of Germany, intrusted with inspecting animals in Russia, are charged with being incompetent.

France, too, is also shaken up over revelations as to the conditions of the meat industry in that Republic. It is a well-known fact that refrigeration is a scarce industry in France, ice being little understood or used, except by the very wealthy. With conditions such as this prevailing, much tainted meat finds its way to market, or if the spoiled condition is not apparent, there is no doubt but that some preservative has been used.

Secretary Wilson, of the Department of Agriculture, has had a number of officials of that Department studying the laws of foreign governments with respect to beef inspection, and comparing them with our own. So far, the investigations seem to show that the laws of this country are more stringent than those of any foreign country, but, nevertheless, not rigid enough.

Henrico Co., Va., Mar. 17, '06.

I wish to say that in my opinion the Southern Planter is becoming better and better each year, and that nothing would add more to the success of the Southern farmer than for each one to receive it monthly.

J. SCOTT PARRISH.

Large Yorkshires

The Tidewater Railway is taking a portion of our best farming land and we must reduce our breeding operations, and have decided to offer a portion of our

Imported Boars and Sows,

besides a number of weanling pigs. This presents a rare opportunity to secure great foundation animals of this great breed. PRICES LOW. Address

BOWMONT FARMS, Salem, Va.

BERKSHIRE HOGS.

BEST ENGLISH AND AMERICAN STRAINS.
YOUNG STOCK AT REASONABLE PRICES.

EDWARD G. BUTLER, "Annfield Farms,"
BERRYVILLE, - - - VIRGINIA.

Large English Berkshires

Extra choice May and July litters and more to follow, at low figures. Biltmore and other noted blood. Headed by 2 Royal Boars. C. S. Townley, The Hogman, Red Hill, Va.



PALMETTO FARMS.

Red Polled Cattle. Berkshire Hogs. Angora Goats.

We are offering 2-year-old Red Polled Bulls, of superior beef form, from heavy milking dams. Combine beef with milk, and secure a double profit. Fine individuals, of fancy breeding. Red Polls are hornless. We are pricing them low to make quick sale. ANGORA BUCKS for Sale; nothing to offer in Berkshires before fall.

PALMETTO FARMS, Aikes, S. C.

DUROC-JERSEYS

are at the top and there to stay. Write us and we will give you some hog facts that will convince you

We have the blood of ORION, OHIO CHIEF (recently sold for \$2,000.00), SENNATION, SURE WINNER, TOPNOTCHER, PROTECTION, KANT-BE-BEAT, LONGFELLOW, WASHINGTON KING, GO-FORWARD, FAYETTE CHIEF, and HIGH CHIEF, besides a string of others of the leading Western winning strains, THE VERY CREAM OF DUROC-JERSEY BREEDING. Our prices are low and the quality is high. We can save you money in the purchase price and in expressage. Write at once and we will give you some DUROC FACTS. LESLIE D. KLING, Vaucluse, Va.

Two of the exhibit buildings, now under way, will be 280 feet wide and 550 feet long. They will be two of the largest buildings on the grounds.

The Art and History Palace, which will be connected with the Administration Palace by a fire-proof arcade, will be 124 by 129 feet.

The Arts and Crafts Village will be one of the most unique and instructive features of the Exposition.

The Pocahontas Hospital is the first building at the Exposition to be finished. It is a pretty frame building, 50 by 85 feet.

The Model School at the Arts and Crafts Village is finished and the school garden has been planted in many varieties of vegetables.

The Textile Building is the third building to be finished. It is a part of the Arts and Crafts Village, and is 88 by 53 feet.

The Pottery Building, now under construction, is 48 by 50 feet.

The Mothers' and Children's Building occupies a place of prominence in the Arts and Crafts Village. It is 60 by 100 feet.

The largest building in the Arts and Crafts Village, is the Copper, Silver and Woodworking shops, 137 by 44 feet.

The Iron shops of the Arts and Crafts Village cover a space of 48 by 50 feet.

On April 26, one year before the Exposition opens, there were more than 1,000,000 plants, flowers and trees on the grounds. Many more will be added during the year.

The eight-foot wire fence surrounding the Exposition grounds on two sides is two and a half miles long.

The Exposition has more than two miles of water frontage on Hampton Roads.

One of the oldest trees in the country is the famous live oak on the Exposition grounds, named "Powhatan," in honor of the great Indian chief. It is supposed to be nearly 1,000 years old.

The Jamestown Exposition opens April 26th, 1907, and closes November 30th, 1907.

The opening of the Jamestown Exposition will be 300 years from the first English settlement in America, April 26, 1607.

The great double piers extending from the Exposition grounds out into the waters of Hampton Roads are 2,400 feet in length and each is 200 feet in width. They are connected by a cross pier 1,200 feet long. Between the piers is a body of water 800 feet across and 1,200 feet long.

THIRD ANNUAL MEETING VIRGINIA STATE FARMERS' INSTITUTE.

The third annual meeting of the Virginia State Farmers' Institute will be held in the Casino in Roanoke on

MONTVIEW JERSEYS.

We have for sale, at reasonable prices, Bull calves sired by our prize-winning Imported Marett's Flying Fox and also one masculine son of the famous Forfarshire.

MONTVIEW BERKSHIRES.

MANOR FAITHFUL, pronounced by Geo. F. Weston, Superintendent of Biltmore Farms, the BEST BOAR HE COULD FIND IN ENGLAND. Sold for \$615, and weighed 1100 pounds in show condition. We have now pigs by this great boar out of splendidly bred sows. Only a limited number will be sold.

We also have a fine litter from an imported sow by BARON PREMIER 3RD, the boar that was first prize-winner in his class at the St. Louis Exposition.

Montview Farms,

CARTER GLASS, Owner.

C. L. STAHL, Manager,

Box 513, Lynchburg, Va.

BILTMORE FARMS

R. F. D. No. 2, Biltmore, N. C.

JERSEYS.

Send for booklet of young Jersey bulls.—The get of seven different sires. Also send for prices and descriptions of choice young heifers from six to twelve months old.

BERKSHIRES.

Price list of Berkshire Sow Pigs and gilts soon to be issued. Drop us a card and have your name placed on our regular mailing list for BERKSHIRES and JERSEYS.

Write for prices and descriptions of what you want.

Address

BILTMORE FARMS,

R. F. D. No 2, Biltmore, N. C.

SUNNY HOME HERD

—OF—

Aberdeen Angus Cattle.

The two bulls at the head of this herd (Baron Roseboy 57666 and Jester 60671), are as well bred as any in America. Baron Roseboy is a grandson on both sire and dam's side of Heather Lad 2nd, the greatest stock bull of the Angus breed ever in America. Jester is a grandson on sire's side of Equestrian, the greatest bull Scotland has produced in many a day. Jester's dam Jilt 12th, is the best female in the great "Grandview" herd and is a granddaughter of the famous Bushman—by Young Vicount—and a great granddaughter of Paris 1166, the bull who turned the eyes of the stock growing world toward the Angus breed at the Paris Exposition. Well sell sons of these two great bulls at prices within the reach of every stockman. Write Farm at Fitzgerald, N. C.

A. L. FRENCH, Prop.
R. F. D. Byrdville, Va.

EVERGREEN FARMS

I am offering a choice high-bred

REGISTERED JERSEY HEIFER.

bred to by pure St. Lambert Bull, Rincora's Rioter of St. L., H. R. 69,478. Sons of this bull from grand cows, for sale.

W. B. Gates, Prop. - - - Rice Dep. Prince Edward Co., Va.

July 10, 11 and 12. This decision was reached at a recent conference of the sub-committee appointed by the Executive Committee to determine on the time and place for holding the next meeting. Application has been made to the railroads for a fare and a third rate, which it is confidently believed will be granted. For the convenience of farmers who may not be able to spend the three days away from home, a request has been made to have the rates good going on the 9th, 10th and 11th, and returning on the 13th, inclusive. Assurances have been given that a special train will be available to carry the delegates to the Experiment Station at Blacksburg, where they will have an opportunity to inspect the various lines of investigation in progress there, and see the equipment of the College of Agriculture free of cost.

The last Institute was highly successful, more than 500 farmers being in attendance, and the organization is in a thriving and vigorous condition as is shown by the publication of a creditable report containing more than 150 pages. The following are the names of the officers and vice-presidents:

President, J. Hoge Tyler, Radford; 1st Vice-President, T. O. Sandy, Burkeville; 2d Vice-President, John T. Cowan, Cowan's Mills; Secretary, Andrew M. Soule, Blacksburg; Asst. Secretary, J. M. Williams, Roanoke. The following are the vice-presidents for the several congressional districts:

- 1st, A. Jeffers, Norfolk.
- 2d, Joseph Bryan, Eagle Point.
- 3d, Joseph R. Anderson, Goochland.
- 4th, C. N. Stacy, Amelia.
- 5th, Dr. J. R. Guerrant, Calloway.
- 6th, S. C. Coggin, Rustburg.
- 7th, J. G. Martin, Coveseville.
- 8th, W. S. Lewis, Leesburg.
- 9th, W. B. Robertson, Saltville.
- 10th, Joel Flood, Appomattox.

Any farmer in the State is eligible to membership on the payment of \$1.00, and every person is cordially invited to attend, as the sole object of this organization is to have an annual gathering representative of the agricultural interests of Virginia at which various topics of general concern to the farmers may be discussed. No effort or expense will be spared to make the program superior to those of previous meetings. Announcement with reference to this and other matters of interest to farmers who desire to attend the meeting will be made from time to time. Every farmer interested in better methods of agriculture, insuring a more permanent prosperity for this State, should make it a point to paste the dates in his hat and so adjust his farming operations that he will have sufficient leisure on the dates indicated to attend the Institute.

ANDREW M. SOULE, Secretary
May 7th, 1906.

THE PREMIUM LIST

—OF THE GREAT—

TENNESSEE STATE FAIR

—AT—

NASHVILLE, OCT. 8 TO 13, 1906,

Is ready for distribution. It's interesting reading.
Tells all about the South's greatest

Live Stock and Agricultural Exposition.

Liberal premiums for all breeds of Live Stock, Poultry, Agricultural products. Don't fail to get a copy. Sent upon application to the

Tennessee State Fair Association, Nashville, Tenn.

Southern Real Estate Wanted

I have hundreds of enquiries for Southern Farm lands and business properties, also residence properties suitable for summer homes. If your property is for sale write me and I will to prove you that

I Can Sell It

I make a specialty of Virginia and North Carolina real estate and can sell more than any other man in the North. I will prove this to your satisfaction by selling yours. If you want to sell, write me and

Do It Now

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W. STANLEY BURT, Detroit, Mich.



NEW STEEL ROOFING and Siding \$175

PER 100
SQ. FT.

Fire,
Water and
Lightning Proof



want quick delivery, now is the time to place your order. Send us diagram of the Building you have to cover, and we will quote you a Freight prepaid price on such covering as we deem best suited for your purpose.

ask For Catalog No. 1710. Lowest prices on Roofing, Eave Trough, Wire, Pipe, Fencing, Fumblings, Doors, Household goods and everything needed on the Farm or the Home. We buy our goods at wholesale and receive a

sales. CHICAGO HOUSE WRECKING CO., 35TH & IRON STREETS, CHICAGO

Metal roofing, such as we offer, is far superior to any other kind. It is easier to lay, lasts longer and costs less. No experience necessary to lay it. Just an ordinary Hatchet or Hammer—the only tools you need. This roofing at \$1.75 per 100 square feet, is our No. 15 Grade Semi-Hardened Steel, painted red, two sides, perfectly flat, 24 inches wide by 24 inches long. Corrugated (as illustrated), 12" Crimped or Standing Seam costs \$1.65. We can furnish the following in 8 foot lengths at 25c per square additional. We offer Pressed Brick Siding and Beaded Ceiling or Siding at \$2.25 per 100 square feet, price—

WE PAY THE FREIGHT TO ALL POINTS EAST OF COLORADO except Oklahoma, Indian Territory and Texas. Prices to other points on application.

Send in your order for as many squares as you may need to cover your new or old Building. Time has proved its enduring qualities. Thousands of Barns, Houses, Residences, Poultry Houses and Buildings of every kind are covered with this superior material. We guarantee satisfaction. Money cheerfully refunded if upon receipt of the material you do not find it all we represent it, or if you are not perfectly satisfied in every way just send the material back at our expense, and we will refund the purchase price. If you

BERKSHIRES

of the most fashionable English strain. A nice lot of pigs for sale.
Prices reasonable, Correspondence solicited.
COL. HENRY HOLLYDAY, EASTON, MD.

MORVEN PARK.

The Property of WESTMORELAND DAVIS, Esq.

Reg. Dorset Horn Sheep.

Flock headed by Imported Ram, MORVEN'S BEST No. 4132 (C. D. C.), 1st. Prize at English Royal 1904.

We are offering for June delivery, fall born rams weighing, without forcing, at less than six months of age, from 110 to 130 lbs., and averaging 120 lbs. Fit to head any flock.

Large White Yorkshires.

Registered Pigs for sale. Herd headed by Imported boar HOLYWELL HUDDERSFIELD No. 4850, A. Y. C., 2nd prize at Yorkshire (England) Show, 1904. Only time shown.

All pigs either bred on the place and descendants of, or directly imported from the prize winning herds of England. These pigs are prolific, hardy, and they are economical feeders. They are the bacon breed of England and the coming breed of America.

REG. GUERNSEY CATTLE.

TUBERCULIN TESTED.

Herd headed by bull, IMPORTED TOP NOTCH No. 9023 A. G. C. C. son of Imported Beda. Advanced Register No. 136, official yearly butter record 640 lbs. of butter; assisted by MAINSTAYS GLENWOOD BOY No. 7607 A. G. C. C., son of Jewel of Haddon, Advanced Register No. 92, official yearly record 463 lbs. of butter.

We are offering a bull by Imported Top Notch out of Imported Claremont Ruth IV, Advanced Register No. 130, official yearly record 474 lbs. butter, average test 5.6 per cent. butter fat. Also bull by Imported Top Notch out of Princess Dorothy who has just entered the advanced Registry. This bull on dam's side belongs to the Honoria family and is closely related to Guernsey Champion, 1st. at the St. Louis Exposition. Also other bulls from approved deep milking dams.

ALL STOCK IN FINE CONDITION.

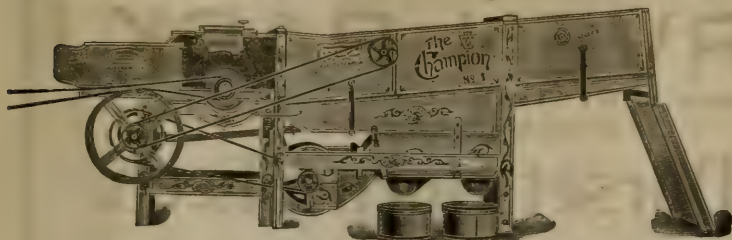
Flocks and herds may be viewed by appointment.

Address

LIVE STOCK DEPARTMENT, MORVEN PARK,

LEESBURG, LOUDOUN CO., VA.

Ellis Champion Grain, Peanut and Cow Pea Thresher, MANUFACTURED BY Ellis Keystone Agricultural Works, Pottstown, Pa.



We make four sizes of
**Grain and
Peanut
Threshers
and Cleaners**

NOS. 1, 2, 3, AND 4, FOR EITHER STEAM, LEVER OR TREAD POWER,

All of which are guaranteed to give entire satisfaction. Our THRESHERS and CLEANERS have been thoroughly tested throughout the United States, and pronounced by the growers of GRAIN, PEANUTS, BLACK and COW PEAS as the most complete and satisfactory Thresher of the period. No grower of any of the above can afford to be without one.

For Catalog and any information desired, write to

GEO. C. BURGESS, Gen'l Southern Agent, Burgess, Dinwiddie Co., Va.

THE EUROPEAN SLUG—A NEW GARDEN PEST.

There appears to be in process of development in North Carolina a new pest to worry people who have gardens or spring houses. The coming pest is the imported or European slug—*Limax flavus*. This is a notorious nuisance in its native continent, ranking with rats and cock-roaches. Samples of this creature have recently been sent to the biologist of the North Carolina Department of Agriculture from Alamance county. The sender called them snails, but they all proved to be the slugs. Snails and slugs are different and distinct genera of the order of Mollusca. Snails carry on their backs the well-known spirally rolled shell. Slugs possess no shell, but have a sort of soft shield over the thorax. How or when this pest reached America is not known. Until very recently, it was confined to sea-port towns, from Boston southward to Savannah. It has now been found in central North Carolina, and is likely to be frequently heard of in future.

This slug lives, by preference, in cool, damp cellars, and in milk houses and under the platform of wells. It frequently drowns itself in milk and cream crocks. It also falls into wells, where its decaying body spoils the water for drinking.

Slugs are night feeders, and prefer growing vegetables and fruits, but will eat almost anything. They ascend trees, and eat or spoil fruit. The damage they do is often imputed to birds or caterpillars. Slugs, in moving, pour out a slimy mucus, which hardens into a glistening trail as the creature passes on. This trail may serve to show the presence of the slug. There are native species of slugs, but none are considered injurious to farms or gardens.

Remedies.

Just before dark, sprinkle fine, dry

SPRAY NOW

It will soon be too late.

100 Per Cent. Dividend.



ON THE INVESTMENT IN A
**DEMING
SPRAY PUMP**
Can be realized by any
FRUIT GROWER.

Best Iron.
Best Brass.
Best Construction.
Simple.
Durable.

Sydnor Pump & Well Co., Inc.
Dept. B.
Richmond, Virginia.

THE GREEDY ELI

doesn't choke when big charges enter its large feed opening. Folds perfectly and makes solid, compact bales of Alfalfa, Peavines, Johnson Grass, etc. Everything requiring baling. It's the and its power gets stronger as the bale becomes denser. Large feed opening makes it every where the favorite. Bell's No. 1, 4-Side Tension Grip. 40 different sizes and styles. Call and see it or write for illustrated catalogue.

Easiest Baler to Feed,

COLLINS PLOW COMPANY,

185 Hampshire St.,

Quincy, Ill.



ashes or air-slaked lime where slugs have been found. The ashes or lime irritates and burns the soft body of the slug, causing it to pour out so much mucus that it soon becomes exhausted. The mucus quickly dries and imprisons the slug, which soon dies.

Another remedy is to place shingles or large leaves on floors of cellars and dairy houses, and other places infested by slugs. The slugs will hide under the shingles and leaves at the approach of day, and may be gathered and fed to chickens and hogs. This slug does not bite or sting, and may be handled with impunity.

GERALD MCCARTHY.

Biologist, North Carolina Department of Agriculture.

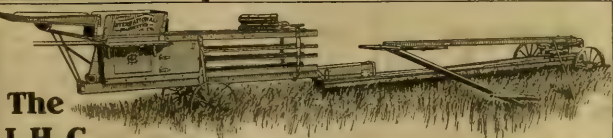
SCIENTIFIC WRITERS OF THE SOUTH.

By Mary Washington.

Article No. 1.

In point of chronology, as well as of distinction, Audubon ranks with the first of American Scientific men and writers. He was born in 1781, in Louisiana, where his parents, who were French Protestants, had taken up their residence while it was still a Spanish colony. They afterwards moved to Pennsylvania. From his early years, John James Audubon had a passion for studying the habits and appearance of birds, and trying to draw them from nature. At the age of 15, he was sent to Paris, where he remained two years, and during this time, he had the privilege of taking some lessons in the drawing school of the famous David, which, no doubt, assisted him greatly in his after career. On his return to America, his father established him on a plantation in Pennsylvania, and he married at an early age. His passion for natural history continued to strengthen. For fifteen years, he annually explored the depths of great primeval forests, and in these expeditions, he acquired that large and exact knowledge and learned to make those spirited and life-like drawings of birds which gave such great value to his works in later life. At that time, however, he had no thought of publication. He tells us "It was not the desire of fame that led to these long exiles, but the enjoyment of nature."

At length, he completed and carried to Philadelphia a portfolio containing 200 sheets filled with colored delineations of about 1,000 birds. Business calling him away unexpectedly from Philadelphia, he left his precious portfolio in the warehouse of a friend. Judge of his dismay to find on his return that his drawings had been destroyed by rats! The shock brought on a spell of illness that well nigh proved fatal. But his native energy revived as he recuperated from the illness, and he plunged again into the



The
I. H. C.

Pul-Power Baling Press

THIS is the press for the man who does not want to depend on the contract baler.

No power other than your own horses required—you and your regular help can bale it—you can bale at odd times, any time you want to.

It is a full circle press of great power and great strength. It is made chiefly of steel and iron, angle steel bale chamber with hard steel corners.

The pressure is applied by a pull instead of a push, as in ordinary presses—a great advantage.

There's a low step-over for the horses at the bed reach, only 4 inches high. And it is so contrived that as the pressure on the bale becomes greater the pull for the team becomes lighter.

The I. H. C. press has a large feed table and a large feed opening. A roller tucker, which tucks hay into bale chamber, insures neat bales.

The I. H. C. presses are made in two styles, the one-horse and the two-horse presses. With either one you can be assured of getting such compact, shapely bales that you can put 20,000 lbs. into the car.

No matter what you have to bale, timothy, clover, alfalfa, straw, shavings—you will find the I. H. C. presses at home at the work.

If you want a press that will enable you to bale your hay fast and economically—a press known for its convenience, easy operation for team and man, and its nice work—investigate the I. H. C. presses.

The I. H. C. Pul-Power Presses are not experiments. Both the one-horse and the two-horse have been operated in every locality where hay is grown. The one-horse press has 14 by 18 inch bale chamber. The two-horse press makes three sizes of bales, 14 by 18, 16 by 18 and 17 by 22.

Call on the nearest International agent who will explain fully, or write us for hay press book which gives all particulars.

INTERNATIONAL HARVESTER COMPANY OF AMERICA,

(INCORPORATED.)

Chicago, Illinois, U. S. A.



We offer our well known Gem Full Circle 14x18 Steel Baler for only \$145.00 f.o.b. Quincy, cash with order. Each press is furnished complete with feed fork, wrenches, oil can, tie-making machine, lifting jack and full instructions how to set up and operate.

Nearly forty years' reputation for good Hay Presses is back of our guarantee. Ask anyone who has ever used one of our Gem or Victor presses what he thinks about it. Anybody in Quincy or who has ever bought from us will tell you you are safe in dealing with us. Write us today and get our Hay Press book and full information. We will gladly answer your questions without obligation on your part to buy from us. You owe it to your own pocketbook to get our book and learn all about our machines. You want the machine that will do the most work. The average output of our presses is 10 to 15 tons a day and we have many reports of 18 and 20 tons baled day after day by the same men and teams. Our power head with 16 3/4 inch trip lever arms affords two being strokes to every round of the team and utilizes every pound of power. The automatic brake device saves the team from all jar and jerk of the plunger's rebound. The 30-inch feed opening and the long plunger travel enable the operator to put in large charges of hay without danger or undue haste. In every way our Steel Balers are the perfection of baling machinery; lowest price, greatest output and most easily and cheaply operated. Least expense for repairs because every part is made amply strong. Send draft for \$145.00 with your order and we will ship at once. If the press does not come up to our representations you may return it and we will refund your money and pay freight.

\$45 BUYS THE GEM FULL CIRCLE 14x18 STEEL BALER
GEO. ETEL CO., QUINCY, ILL.

WHITMAN'S "WORLD'S" LARGEST & MOST PERFECT GUARANTEED TO ALSO LARGE LINE FIRST CLASS SEND FOR WHITMAN AGR. CO.
VICTORIOUS & LEE THE WORLD'S OVER
STANDARD "BALING" PRESSES LINE IN AMERICA HAVE NO EQUAL AGRICULTURAL MACHINERY CATALOGUE ST. LOUIS, MO.

Received the **GRAND PRIZE**, highest award, on Bolt and Horse Presses, World's Fair, St. Louis.

When corresponding with our advertisers always mention the
SOUTHERN PLANTER.

LEE'S

Prepared Agricultural Lime
Excelsior Tobacco Fertilizer
Special Corn Fertilizer
Special Wheat Fertilizer

LEE'S

IMPORTED THOMAS BASIC SLAG and GERMAN FRUIT GROWER.

LEE'S PREPARED AGRICULTURAL LIME used on land with a fair amount of Humus is excellent for Corn. Apply 300 lbs. per acre in the drill. It prevents bud worms and keeps crop green and growing in dry seasons. When applied broadcast use double quantity. It will improve the land. When corn is laid by sow Cow Peas or German Clover and obtain good fallow for next crop. Improve your old broomsedge fields by plowing under deep. Sow Cow Peas and apply 300 lbs.; LEE'S PREPARED AGRICULTURAL LIME, per acre. Forage obtained will more than pay the expense; land will be in fine condition for winter Oats or Clover in the spring.

Lee's Special Corn and Lee's Special Wheat Fertilizers have given good results where used. Write for circular.

A. S. LEE & SONS CO., Inc., Manufacturers, Richmond, Va.

forest wilds and labored so diligently that he repaired the loss in three years. He then re-joined his family, who, in the meantime, had gone to Louisiana. After a short sojourn there, he set out (1826) to exhibit his drawings to the ornithologists of the Old World. These were publicly exhibited in Liverpool, Manchester and Edinburgh, and their merits were immediately recognized. When he began the publication of his work on "American Birds," it was on such a large and magnificent scale that it was years before he could get a sufficient number of subscribers to indemnify him for the cost. Every bird was delineated the size of life, and a whole page devoted to each species. The first volume was published in New York, in 1830, the second volume in 1834, the third in 1837, and the fourth and last in 1839. The whole consists of 435 colored plates, containing 1,055 life-sized figures. It is, undoubtedly, the finest work of the kind ever given to the world, and well merits Cuvier's encomium: "C'est le plus magnifique monument que l'Art ait encore élevé à la nature."

In 1829, Audubon visited Paris (from England) and met with Cuvier, Humboldt and other distinguished naturalists, who received him with open arms. For twenty years after this, he went backwards and forwards between the United States and Great Britain, but bade a final adieu to Europe in 1839, and spent the remainder of his life in his own country.

During his earlier residence in Edinburgh he had begun to publish his "American Ornithological Biography," which at length filled five large octavo volumes and constituted a valuable addition to that field of science, as its description of birds and their characteristics and habits are exceedingly accurate and interesting.

On his return to America in 1839, Audubon published his "Birds of America" in popular form in seven octavo volumes, the last of which appeared in 1844. His ardent love of nature still prompted him to new enter-

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TESTIMONIAL.

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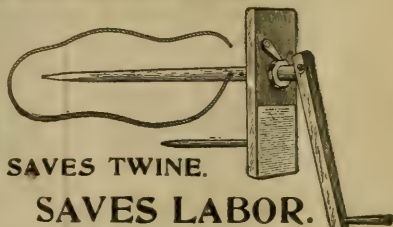
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SAVES TWINE.

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prises and he set out on fresh excursions, but in these he was accompanied by his two sons in later life, and by one or two naturalists. The result of these excursions was the production of a new work, "The Quadrupeds of America," in atlas folio, and also "A Biography of American Quadrupeds." John Bashman, of North Carolina, was his collaborator in the former work, though all the drawings were furnished exclusively by Audubon.

In addition to his talents, Audubon possessed many estimable qualities, and a deep sense of religion. He always spoke with gratitude to heaven for the very happy life he had been permitted to enjoy. He had indeed been blessed in being able to follow fully his own bent and to attain excellence and eminence in it, and, for generations to come, his works will give delight not only to the scientific world, but to the simple, unlearned lover of nature and of the beautiful. Audubon died on the 27th of January, 1851.

South Carolina has proved peculiarly rich in scientific men and in poets, and not infrequently the same individual has combined the pursuit of science and poetry.

The most prominent, perhaps, of the scientific men of South Carolina is the distinguished John Bachman, Ph. D., D. D., LL. D., a man who, though born in New York (1790), spent almost his entire life in South Carolina, and thoroughly identified himself with the place and people. He became pastor of a Lutheran church in Charleston, S. C. in 1815, which position he retained until the time of his death in 1874. He received his education in various academies, both in America and Europe. He received the degree of Doctor of Philosophy in Berlin; D. D., at Gettysburg, and Doctor of Law

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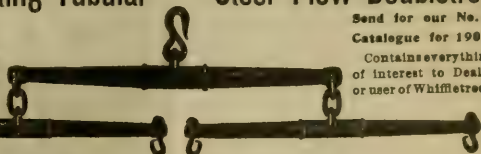
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SOUTHERN PLANTER.

at the Columbia (S. C.) College. He was a member of various societies of natural history and philosophy both in this country and abroad. He was a collaborator with Audubon in the latter's great work on the "Birds of America," and also assisted him in his work on the quadrupeds of this country.

The following is a list of Bachman's works:

"Catalogue of Phonogamous plants and Ferns Growing in the Vicinity of Charleston, S. C."—1834.

"Experiments Made on the Habits of Vultures Inhabiting the Carolinas—the Turkey-Buzzard and Carrion Crow."

"Monograph of Hares of America, including several undescribed species."

"Monograph of Germs Scurius, Including Several New Species."—Published in Transactions of Zoological Society, London, 1838.

"Changes in Color of Feathers in Birds, and of Hair in Animals."—Published in Philosophical Transactions, Philadelphia, 1839.

"History of the Quadrupeds of America." In three volumes. The figures drawn by Audubon, but most of the text supplied by Bachman.

The first volume of "Quadrupeds of America" appeared in 1845, and the work was completed in three years.

"Of the Introduction and Propagation of Fresh Water Fish."—1848.

"Doctrine of the Unity of the Human Race Examined on Principles of Science."—1850.

"Examination of Characteristics of Genera and Species as applicable to Doctrine of Unity of the Human Race."—1855.

"Examination of Agassiz sketch of the Natural Provinces of the Animal World and Their Relation to Different Types of Men."—1855.

"Design and Duties of Christian Ministry."—1848.

"Defence of Luther and the Reformation."

Besides the above-named productions, he wrote many essays, reviews, sermons, editorials and articles, especially on the birds of America. He had several scientific works nearly ready for publication but which were destroyed in the flames when Columbia was burned by Sherman's army, February, 1865, and, no doubt, the scientific world thereby sustained a severe loss. In a vexed question of entomology, in the French Academy, his authority was brought forward, on one occasion, to settle the contention.

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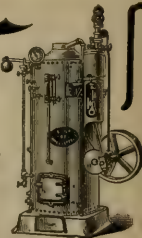
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Southern Churchman, Rich- mond, Va.	2 00	2 25
Harper's Weekly	4 00	4 00
Breeders' Gazette	2 00	1 50
Country Gentleman	1 50	1 75
Hoard's Dairyman	1 00	1 30
Horseman	3 00	3 00
Semi-Monthly.		
Kimball's Dairy Farmer...	1 00	75
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REPORTS.

United States Department of Agriculture, Washington, D. C.

Bureau of Animal Industry. Bull.

84. Investigations in the manufacture and storage of butter. 1, the keeping qualities of butter made under different conditions and stored at different temperatures.

Office of Experiment Stations. Experiment Station Record, Vol. XVII. No. 9.

Forest Service. Bull. 73. Grades and amount of lumber saved from Yellow Poplar, Yellow Birch, Sugar Maple and Beech.

Office of Experiment Stations. Circular 65. Irrigation from Snake River, Idaho.

Office of Public Roads. Circular 39. Public Roads of the State of Washington.

Circular 40. Public Roads of Arizona.

Circular 41. Public Roads of Arkansas.

Circular 42. Public Roads of Oregon.

Circular 43. Public Roads of Iowa.

Circular 44. Public Roads of Virginia.

Office of Public Roads. Circular 45. Public roads of North Carolina.

Circular 46. Public roads of Alabama.

(All the foregoing circulars give details of the mileage and expenditures on the public roads of the several States for 1904.)

Office of Public Roads. Circular 47. Tar and oil for road improvement. Report of progress in experiments.

Circular 48. Public roads in Tennessee.

Circular 49. Public roads of New Hampshire.

Farmers' Bulletin 256. Preparation of vegetables for the table.

Farmers' Bulletin 257. Soil fertility.

Farmers' Bulletin 258. Texas or Tick Fever and its prevention.

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Cornell Experiment Station, Ithaca, N. Y. Bull. 239. Some diseases of Beans.

Colorado Experiment Station, Fort Collins, Col. 16th Annual Report Bull. 113. Larkspur and other poisonous plants.

Bull. 114. Insects and Insecticides.

Bull. 155. Fertilizer Experiments with Sugar Beets.

Georgia Dairy and Live Stock Association. Secy. C. L. Willoughby, Experiment Ga. 11th Annual Report, with proceedings of Macon Convention, Oct. 26-27, 1905.

Kansas Experiment Station, Manhattan, Kansas. Bull. 135. Grading Cream.

Kentucky Experiment Station, Lexington, Ky. Bull. 123. Commercial Fertilizers.

Bull. 124. On the adulterants and weed seeds in Kentucky samples of Blue Grass, Orchard Grass, Timothy, Red Clover and Alfalfa seeds.

Maryland Experiment Station, College Park, Md. Bull. 108. Irish potato disease.

Pennsylvania Experiment Station, State College, Pa. Bull. 77. Small fruits in 1905.

Perdue Experiment Station, Lafayette, Ind. Bull. 112. Commercial fertilizer.

South Dakota Experiment Station, Brookings, So. Dakota. Bull. 96. Forage plants and cereals.

Bull. 97. Speltz and Millet for the production of Baby Beef.

Virginia State Horticultural Society. S. L. Lupton, Secy., Winchester. Report of the 10th Annual Session.

Imperial Department of Agriculture for the West Indies, Barbadoes, W. I. West Indian Bulletin, Vol. VII, No. 1.

Manurial Experiments with sugar cane.

THE VIRGINIA STATE FAIR.

Read the advertisement in this issue of the Virginia State Fair to be held at the New Fair grounds in the city of Richmond, October 9-13, 1906. The Fair Association, under the presidency of Hon. Henry Stuart, is pushing work in the preparation of the Fair grounds and race track and the erection of the required buildings. Already great interest is being taken in this Fair by live stock breeders of national fame, many of whom have promised exhibits and hearty co-operation. Our local breeders are also getting ready their herds for exhibition and we anticipate lively competition for the heavy premiums to be offered. There will be great attractions in the way of first-class amusements for the general public and good racing for those fond of sport. This is going to be the greatest Fair ever held in the South.

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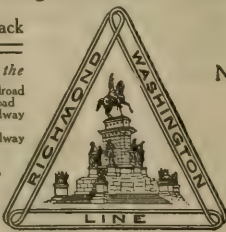
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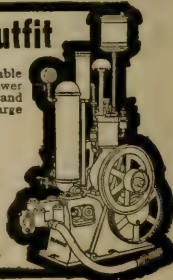
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Halifax Co., Va., Mar. 10, '06.

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HAMPDEN WILSON.

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THE TRUCKER.

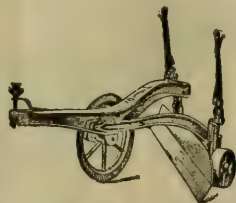
WHERE YOUR LABOR IS NOT IN VAIN

THE SEABOARD Air Line Railway traverses six Southern States and a region of this character. One two-cent stamp will bring handsome illustrated literature, descriptive of the section.

J. W. WHITE, EDW. F. COST, CHARLES B. RYAN,
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THE UNIT ROAD MACHINE
SOLVES THE PROBLEM.



Has but ONE WHEEL, and requires but ONE TEAM and ONE MAN to operate it. By actual test it has been demonstrated that with one man it will build more and better road than can be done by ten men with the usual tools. That it saves labor enough to pay for itself every two days when in use. FOR FARM WORK it has no equal for road work, cutting down ditch banks, opening drains, leveling and other purposes. THE PRICE brings it within the reach of all.

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It is really astonishing to see the neglect of the many opportunities that exist for establishing profitable industries in baling and shipping hay, straw, fodder, husks and similar commodities.

As every one knows, all these products must be baled to be shipped and marketed at a profit, yet, probably millions of tons are sold at a low price, or allowed to go to waste each year—all for the lack of baling presses.

The full information on baling presses, and the annual report on the hay industry, which is being distributed free of charge by P K Dederick's Sons, of 31 Tivoli street, Albany, N. Y., contains facts and suggestions along this line that many a man will be able to turn into money.

These presses have always been awarded first prize in every competitive exhibition, and have been a recognized standard of excellence for many years. Do not fail to send for the book.

MAGAZINES.

The July Century is well named a fiction number, with a serial, "Seeing France with Uncle John," by Anne Warner, and short stories from Alice Hegan Rice, author of "Mrs. Wiggs;"

Anthony Hope, Harry Stillwell Edwards, Laurence Mott, Edna Kenton, Grace Eleanor Towndrow, Annie C. Muirhead, George S. Chappell and W. Albert Hickman—the last a new writer, rich in humor. Mrs. Rice's "The Wild Oats of Spinster" is full of fun; and Mr. Edwards' "The Funeral of Rat Brooks" has the quaint humor of the well-remembered "Two Runaways." "What Was Expected of Miss Constantine" is a tale of the unexpected told in Anthony Hope's best vein; and Lawrence Mott's "Wilkinson's Chance" carries the reader back to the atmosphere and spirit of his "Jules of the Great Heart."

A remarkable variety of fiction, this; but there are other features which make the number notable, among them, two articles of timely value and importance, a discussion of "Why Do the Boys Leave the Farm," by L. H. Bailey, Director of the School of Agriculture, Cornell University, and a full account of "Dry Farming—the West's Hope," by John L. Cowan. Professor Bailey's article is not based upon speculation, but is a summary of the facts and figures given him by a number of Cornell University students in their replies to specific questions as to the reasons influencing them to choose a life work other than farming. Reading of absorbing and vital interest is John L. Cowan's sto-

ry of the marvelous results possible from scientific soil culture in arid regions without irrigation. He gives in detail the facts on which he bases his claim that this new soil culture makes possible the reclamation of five hundred million acres of land thitherto held worthless.

Patriotism is the keynote of the July St. Nicholas, and the spirit of the midsummer holiday enters into pictures, verse, stories and sketches. Captain Harold Hammond, author of the Pinkey Perkins stories, and a West Point instructor, writes with authority of "Honors to the Flag." Thomas W. Lloyd describes "The Great Seal of the United States." Mary Caroline Crawford tells of "The Signers and Their Autographs," a reduced fac-simile of the Declaration of Independence adding to the interest. And the story of Pinkey Perkins' adventures continues with some mirthful Fourth of July pranks. Among other short stories of the number are a birthday tale, "Barbara's 'Spy'" by Eleanor Porter; a Chinese fairy story, "The Magic Teapot," by Florence Peltier, and "The Stone of Success," a legend of the ruby, by Mary E. Mitchell.

Serials and departments round out the number—the St. Nicholas League showing more creditable work than

STRATTON & BRAGG CO., GENERAL AGENTS.

HEEBNER'S Little Giant and Pennsylvania

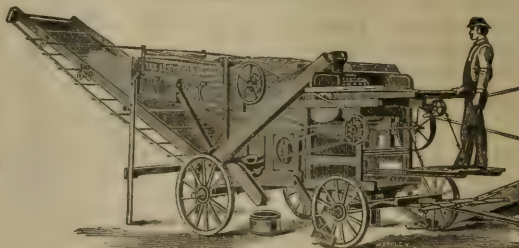
Peanut Pickers and Wheat Threshers.

They are built in first-class manner, and are strong and durable. The price is within the reach of all. We guarantee them to do the work satisfactorily. We will mail catalogue and testimonials, and quote prices on application.



This cut shows our 5 and 7 h. p. "Little Samson" Vertical, Automatic Engine for running threshers, peanut pickers, cutting feed, sawing wood, etc. Larger size also furnished.

PETERSBURG, VA.



CHASE SAW MILLS.

ERIE ENGINE WORKS

SIDE and CENTER CRANK ENGINES.

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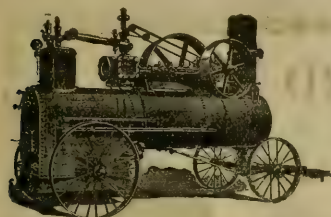
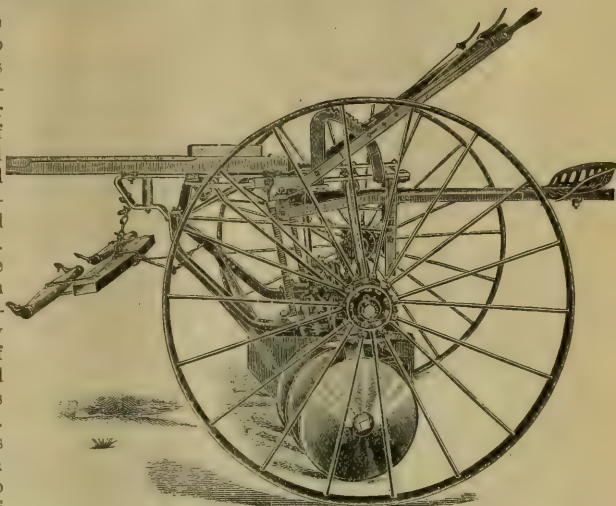
Locomotive--Portable and Stationary BOILERS.

Prices and catalogue on application.

THE CASE DISC CULTIVATOR

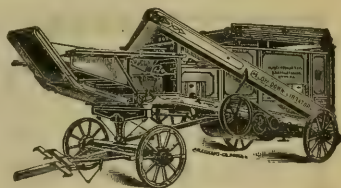
AN INDISPENSIBLE IMPLEMENT FOR EVERY FARM.

From Preparing the land to the complete cultivation of the crops, no other implement is necessary. Its three discs on each side are reversible, and will throw dirt either to or from the crop. The angle of the discs too can be instantly and easily changed by means of a hand lever and the wide range of adjustment allows the discs to be set and locked in exactly the right position. The bearings on this cultivator are not made to wear for one season only, but for the life of the cultivator. An oil chamber holds a supply of oil which makes it practically self oiling. The wheels have capped hub and removable boxes. In this way, all the dirt is kept out the boxes. The telescope axles allow the wheels to be opened or closed to fit any width row. Extra discs are furnished to change this to a disc harrow if wanted. All kinds of walking and riding cultivators as well.



Farquhar Steam Engines
and Threshing Machines

Westinghouse Gasoline
Threshing Engines



fits that can be used. Small or large sizes furnished promptly and at low prices.

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Time, Labor and Money Saving Farm Implements,

Giving descriptions and prices of

Wheel and Disk Cultivators, Disk Seed Hoe grain Drills,
Corn and Cotton Planters, Farm Wagons, Engines,
Buggies, Surries, Harness, Saddles, V. Crimp and
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Farmers will get the best Farm Implements on the market and save money by sending us their orders.



A RANEY CANNING outfit will save much fruit and vegetables, costs little, keeps money on the farm and brings more on. We furnish them to work on cook stove or furnace for either home or market canning. Their small cost will be saved in one day. Send for circulars and prices.

The Implement Co.,

1302 Main St.,
Richmond, Va.

ever, work that promises well for the young writers and artists represented. "Nature and Science" has interesting information of some swamp flowers of July, white thistles, cedar apples and other timely topics; and "Books and Reading" is, as usual, rich in comment and suggestion.

THREE GOOD DEEDS.

"My good man," said the professor of sociology, "you seem to be happy; would you mind telling me the reason for your happiness?"

"O! wud not, sor," said the Irishman. "O! hov just done three good deeds, and anny man who has performed three good deeds has raison to be happy."

"Indeed he has," said the professor; "and may I ask what three deeds you have performed?"

"Well, as O! was coming past the cathedral this morning, I saw a wumman wid a wee bit infant in her arms, crying thot hard it would melt the heart av a sthane. I asked her phat could be the matther. She answered thot for the want av three dollars to pay the fees she could not get the child baptized, an' it was a sickly child, an' lible to die soon. I felt thot bad for her I pulled out the only tin dollars I had, and tould her to go and get the child baptized and bring me the change. She went inside re-

jolcin', and soon returned wid her face all smiles, give me my change, went away hapin' blessin's on my head. Now ain't thot enough?"

"That's good," said the professor; "now, what were the others?"

"Others?" said the Irishman; "that's all."

"I understood you to say that you had performed three good deeds."

"And so I did, don't you see. I dried a widow's tears, thot's wan; I saved a soul from purgatory,—thot's two; and lastly I got slivin good dollars for a bad tin, and if thot wouldn't make you happy thin you are hard to please."—June Lippincott's

THE HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA.—NOTICE OF TWENTY-FIRST ANNUAL MEETING.

In accordance with Section 2 of the Charter as amended by resolution of March 16, 1898, and Article II, Section 13, of the By-Laws, you are hereby notified that the Twenty-First Annual Meeting of The Holstein-Friesian Association of America will be held at the Yates Hotel, Syracuse, New York, on Wednesday, June 6, 1906, at 10 o'clock A. M., for the election of officers and the transaction of any other business which may legally come before it.

F. L. HOUGHTON, Secy.

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Charlotte Co., Va., Mar. 21, '06.

I would not like to farm without the Southern Planter.

CHAS. C. PARIS.

Gloucester Co., Va., Mar. 16, '06.

I like the Southern Planter well and find it very helpful and instructive. I take it for my farmers' guide.

R. LEMON.

Surry Co., Va., Mar. 14, '06.

I cannot get along without the Southern Planter.

CHAS. G. DEISSNER.

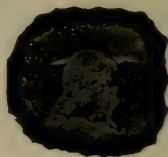
PURE-BRED HEREFORD CATTLE

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Mature Bulls ready for service in large herds.

Two Year Bulls ready for service in both large and small herds.

Yearling Bulls and Bull Calves.



Also to encourage the breeding of good cattle in Virginia, I will part with a few mature breeding cows bred to one of my Herd Bulls and a few choice heifers.

High Grade Hereford Cattle can be raised for market in Virginia at much greater profit than common stock.

Write for prices, etc., or, which is better, come to see the CASTALIA HERD and make your own selection.

Carriages will meet parties at Keswick when due notice is given.

MURRAY BOOCOCK, Owner, Keswick, Albemarle Co., Va.

W. K. BACHE & SONS,

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'PENNSYLVANIA' AND 'ONTARIO' GRAIN DRILLS,
RIDING DISC CULTIVATORS, FONTAINE SHOCK BINDERS,

International Manure Spreaders, Gasoline Engines and Hay Presses, Disc Harrows, Peg Tooth Harrows and Cultivators, BINDER TWINE AND HARVESTER OIL

Special attention to Repair Orders for all kinds of Machinery.

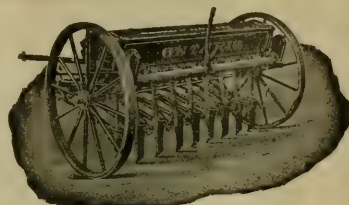
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any article wanted.



'Tennessee' and 'Thornhill' Wagons.



Vehicles of all kinds.



'ONTARIO' Grain Drill.

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WHOLESALE & RETAIL GROCERIES, FEED, WINES & LIQUORS.

SEND US YOUR GROCERY LIST AND GET OUR PRICES.

QUALITY HIGH: PRICES LOW.

Pillsbury Flour, per bbl.....	\$ 5.50	Bran, per cwt.....	1.20	Imported Port Wine.....	3.00per gal.	
Gold Medal Flour, per bbl.....	5.50	Ship Stuff, per cwt.....	1.25	Old Geneva Gin.....	2.00 " "	
Dunlop Flour, per bbl.....	4.85	Timothy Hay, per cwt.....	.90	London Dock Gin.....	2.50 " "	
Obelisk Flour, per bbl.....	5.00	Clover Hay, per cwt.....	.75	Five yr. old Gibson	Whiskey.....	3.50 " "
Daisy Flour, per bbl.....	4.50	Coarse Meal, per cwt.....	1.45	Five yr. old Moore's	Corn Whiskey.....	3.00 " "
Best Water Ground Meal, bu.....	.75	Corn and Oat Chop, per cwt....	1.10	Five yr. old Star Rye	Whiskey.....	2.50 " "
New Irish Potatoes, per bu.....	2.00	Straw, per cwt.....	.65	Five yr. old Keystone	Whiskey.....	2.50 " "
Gran. Sugar, lb.....	.04 3/4	Shucks, per cwt.....	.60	Five yr. old Keystone	Whiskey.....	2.50 " "
Arbuckle's Coffee, lb.....	.16	Molasses Feed, per cwt.....	1.20	Three yr. old Excelsior	Whiskey.....	2.00 " "
Pure Lard, lb.....	.12	Cotton Seed Hulla, ton.....	11.50	Two yr. old Old Capitol	Whiskey.....	1.50 " "
Good Lard, lb.....	.10	Cotton Seed Meal, ton.....	31.00	Five yr. old Virginia	Mountain Whiskey.....	3.00 " "
Best Salt Pork, lb.....	.12	Linseed Meal, ton.....	36.00	Five yr. old North Caro-	lina Corn Whiskey... 2.50 " "	
Good Salt Pork, lb.....	.08	Corn, Oat & Wheat sacks,.....	.05	Three yr. old North	Carolina Corn Whis-	key..... 2.00 " "
Cut Herring, doz.....	.10	Jugs, free.				
Best Cheese.....	.15	Peach Brandy.....	\$2.50 per gal.			
Large Can Tomatoes.....	.10	Fine Catawba Wine.....	.50 " "			
100 lb. Sack Salt.....	.50	Fine Blackberry Wine.....	.60 " "			
Rock Salt, lb.....	.01	California Port Wine.....	2.00 " "			
Corn, per bu.....	.70	Good Port Wine.....	.60 " "			
Oats.....	.50	California Sherry Wine.....	1.00 " "			
Chicken Wheat per bu.....	.90	Imported Sherry Wine.....	3.00 " "			

Orders promptly filled and shipped.

Write for new complete pricelist of everything we handle and carry in stock.

J. S. MOORE'S SONS, Inc., 18th & Main Sts., Richmond, Va. Long Distance Telephone.

Sidney Prince, 32932,

Record 2:21½ Bay Horse

by Sidney, 4770, dam Crown Point Maid, by Crown Point, 1990 sire of Newsboy, 2:14½ and 9 others in list. Fee \$35 season.

RED OLIVER, 36169,

chestnut horse, 5, by Electrice, 10878, dam Lady May, dam of Blondie, 2:13½, etc., by Port Leonard, 12988. Fee \$25 insurance.

MOKO Jr.,

Brown horse 5, by Moko, 2447, dam Rosa Baron, by Earl Baltic, 17724. Fee \$25. Insurance.

RED DILLON, 38696,

bay horse 4, by Baron Dillon, 17287, dam Zinda Lake, by Red Lake, 25988. Fee \$20 insurance.

Address,

FLOYD BROS. Bridgetown, Va.

"IN THE STUD." The Mammoth Jack

KING JUMBO,

A good individual and promising sire, Fee \$5. leap; \$10.00 season; \$15. insurance. O. N. NUCKOLLS, owner, Rio Vista, Va. R. F. D., No. 1.

PATRICK HENRY,

HACKNEY STALLION,

Sired by "Squire Rckel," a blue ribbon winner, by Cadet, a great sire of showing winners dam, "Marjorie," a gold medal winner, by "Roseberry," a championship winner.

Fees: \$5 leap; \$10. season; \$15. insurance

A. POLLARD & SONS, Dunraven Stock Farm, R. F. D. 5, Richmond, Va.

To the Local Unions of the American Society of Equity, Va.:

Gentlemen:—Your State Union was organized at Lynchburg, April 20th and its second Semi-Annual Meeting will be held in the city of Staunton, Va., on July 26th, 1906.

It is very important that this convention be a representative one, and I earnestly urge that you shall send a full delegation to the Staunton Convention.

Railroad rates of one and one-third fare, have been secured, for delegates attending this Convention, and hotel rates of \$1.50 and \$2.50 per day, and boarding house rates of 75 cents to \$1.00 per day have also been secured.

I urgently recommend that as full and complete a crop report be made at this Convention, from each County represented, as is possible, as this will be interesting and profitable information, and will be a business beginning in the work before us.

Let the reports contain an approximate statement as near as possible, of the amount of wheat, hay, tobacco, oats, cattle for market, corn, etc., on hand July 15th, 1906.

The State Farmers' Institute will be held at Roanoke, July 10th, 11th and 12th, and Mr. C. Hays Taylor and Senator A. F. Thomas will speak on the subject of "Profitable Prices for Farm Products" on the afternoon of July 11th, and I urge all farmers to

LORD CHANCELLOR 36614,

trial 2:27½, trotting.

Black horse foaled 1899, 15.3 hands, weight 1300 lbs. sired by Dare Devil, 2:09 (son of Mambrino King, 1279, and Mercedes, by Chimes, 5348).

1 dam Princess May R., by Prince Regent, 2:16½ (son of Mambrino King and Establa, by Alcantara, 2:23).

2 dam Mary Weston (dam of 3 producers) by Mohican, 619.

For terms and extended pedigree.

address: W. J. CARTER, 1102 Hull Street Manchester, Va.

Stallion cards, folders, posters and stock Catalogues compiled by "Broad Rock" who is also prepared to trace pedigrees and register horses, having full sets of the American Trotting Register Stud Books, Wallace's Year Books, and other standard works. In addition to extensive private memoranda. Address

W. J. CARTER, 1102 Hull St., Manchester, Va.

or P. O. Box 929, Richmond, Va.

Representing "The Times Dispatch" and "Southern Planter," Richmond Va. "Kentucky Stock Farm," and "The Thoroughbred Record," Lexington, Ky.; "Sports of the Times," New York, Breeder and Sportsman," San Francisco, Cal., and The Horseman, Chicago, Ill.

FANCY HAL, (saddle stallion) bay horse, by Prince Hal dam, Fancy Girl, by Fancy Boy, KING OF SPAIN, black Spanish Jack. Fees, \$5 leap; \$8 season; \$12 insurance. Address,

HUNTERS HILL FARM, Apple Grove, Louisa Co., Va.

attend this Institute who can possibly do so.

Your dues to the State Union should be paid to your several treasurers before July 15th, or sent to Mr. C. N. Stacy, of Amelia, your State Treasurer, by that time.

We now have nearly two hundred Local Unions in Virginia, and organizing still continues, and I hope that the July Convention will be a large one. The Board of Supervisors of Augusta county have kindly granted us the privilege of holding the Convention in the County Court House, a handsome, commodious new building, very suitable for the purpose, located in the central part of the city, and the Convention will be called to order on July 26th, 1906, at 12 o'clock M.

In order to secure the reduced rates for the return trip, you must secure a certificate when you buy your ticket which must show that you have paid full fare going—this will entitle you to one-third fare, plus 25 cents, for the return ticket, provided not less than fifty attend the Convention. Send full delegation. This meeting will be important. Much depends upon the success of our Staunton Convention, and I urge a full delegation from each County or Local Union.

Respectfully,

JAMES R. KEMPER, President.
Staunton, Va., June 20th, 1906.

Great! Stakes, 2252½,

Record 2:20, bay horse, by Billy Thornhill 8707, dam Sweepstakes, by Sweepstakes 208, sire of Captain, 2:10½ and 7 others in list. Fee \$20 season.

SON.

FERNROY 43040,

Bay horse, 4, by Eloroy, 244½, dam Fern, 2:18½, by Petoskey, 3638. Fee \$20 season.

ALFRED NELSON,

Bay horse, by Alfred G., 12452, dam Madge, by Hambletonian 1.57. Fee \$15 season.

Address, W. H. NELSON Manchester, Va. or 1428 E. Franklin St. Richmond, Va.

Foxhall McGregor,

Bay horse, by Robert McGregor, 2:17½, dam Cleo, 2:19½, by Gambetta, 1172.

Note.—Robert McGregor, sired Crescens, 2:02½, champion trotting stallion. For terms

Address, McEACHERN BROS. Wilmington, N. C.

HALTE LA, 518,

(French Coach Stallion)

Bay horse, 16½ hands; 1800 lbs. For terms and extended pedigree address,

JOS. L. WOOLDRIDGE, R. F. D. 2, Richmond, Va.

BOOKS.

The Southern Gardeners' Practical Manual, by J. S. Newman, formerly Professor of Agriculture, Horticulture and Animal Husbandry in the Alabama Polytechnic, and lately Director of the Agricultural Department of Clemson College, S. C., and Vice-director of the Experiment Station of South Carolina. This is one of the most concise and handy gardener's manual we have ever read. Every Southern farmer ought to have a copy of it and keep it at hand for constant reference. If its advice is acted upon, there will be no scarcity of vegetables and garden products for the table at all seasons of the year, and the good wife will be spared many hours of anxiety as to what she is to find to cook to make an appetizing meal. The work is the outcome of Professor Newman's long practical experience in the garden, and the advice given is so plain and direct that any man capable of reading at all can understand what he ought to do to succeed with a garden. The book will be found fully advertised in our columns and can be had from the author, or we shall be glad to supply it at the publisher's price.

A neat Binder for your back numbers can be had for 25 cents. Address our Business Office.

A LIBERAL OFFER.

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SOUTHERN PLANTER

FOR 10 CENTS OR 3 FOR 25 CENTS.

This liberal offer should be accepted by thousands who are not now readers.

Send in at once.

The SOUTHERN PLANTER, Richmond, Va.

THE IMPORTATION OF PRECIOUS STONES, 1905.

If the importation of precious stones into the country is any indication of general prosperity, then the year 1905 must have brought material blessing to many in the United States. According to the forthcoming report of Mr. George F. Künz, special agent of the United State Geological Survey, the value of the precious stones imported into the United States in 1905 was \$34,998,513, as compared with the imports of 1904, valued at \$26,086,813. The stones imported in 1905 included "blaziers" diamonds worth \$6,850, diamond dust valued at \$190,072, rough uncut diamonds worth \$10,281,111, set diamonds worth \$742, unset ones valued at \$20,375,304, and other stones, not set, worth \$4,144,434. Especially noticeable is the fact of the greater importation of the rough material and the greater increase of the diamond-cutting industry in this country. The importation of precious stones for the month of December, 1905, was valued at \$3,633,379, which is as much as the importation of any entire year up to 1879.

This importation was attended by prosperity in every branch of the jew-

elry business, the sales ranging from the richest gems to those of the poorest qualities, and even to every known form of imitation.

VITALITY OF ALFALFA SEED.

A remarkable test of the vitality of alfalfa seed is reported in Bulletin No. 110 of the Colorado Agricultural Experiment Station. It is generally considered that seed must be perfectly new in order to come up freely. In Bulletin No. 35 of the Experiment Station, some tests were given of seeds ranging from one to six years old. Dr. Headen has retained samples of the same seed and tests have been again made when the seed has been from eleven to sixteen years old, and the tests have shown that from 88 to 96 per cent. germinated. The screenings showed less vitality, the first quality of screening running from 50 to 79½ per cent.; second quality, 38 per cent.; and third quality, 40 per cent.

ARKANSAS STATE FAIR.

Hot Springs, Ark.—The Arkansas State Fair Association will hold its first annual meeting October 1st to

10th in the \$500,000 racing plant of the Oaklawn Jockey Club, Hot Springs, Ark.

The Fair will embrace all exposition features and a complete racing program of harness and running events.

CIRCULATION STATEMENT.

In an address recently delivered before the Chicago Press Club, Opie Read told the following story:

When I was connected with the "Arkansaw Traveler" I one day called upon a large advertiser to solicit his patronage. Naturally, the first question he asked was as to the circulation of my paper. "Where does it go?" he queried. "Where does it go?" I replied. "Why it goes North and it goes South; it goes East and it goes West; and would have gone to hell long after if it had not been for me!"—June Lippincott's.

Sullivan Co., Tenn., Mar. 19, '06.

No better magazine than the Southern Planter comes to this town, Blountsville. None published that gets as close to our people. Its editorials are crisp and sparkling.

W. F. YOAKLEY.

SEASONABLE IMPLEMENTS AND MACHINERY.

Genuine BROWN Walking and Riding Cultivators. All styles. Write for circular and prices.



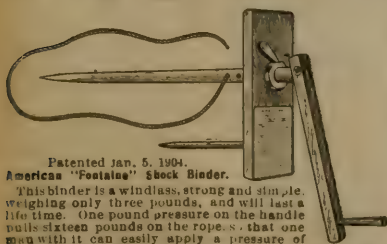
Kemp's Twentieth Century Improved Manure Spreader. Made in three sizes. Write for special Catalogue and prices.



Scientific Steel Corn Harvester.
The best harvester on earth, for standing corn.
Safety Seats. Safety shafts.

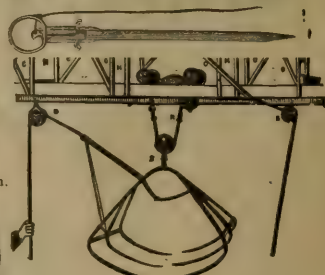


KEYSTONE HAY LOADERS and
SIDE DELIVERY RAKES also.
CHAMPION STEEL HAND and
SELF-DUMP RAKES, and TED-
DERS all sizes.



Patented Jan. 5, 1904.
American "Festine" Shock Binder.

This binder is a windlass, strong and simple, weighing only three pounds, and will last a life time. One pound pressure on the handle pulls sixteen pounds on the ropes. That one man with it can easily apply a pressure of over 500 pounds, thereby compressing a shock at the top so tightly that it will not fall or be blown down, and will not be injured by getting wet inside when it rains. Both ends of the rope are drawn by this binder so that the shock is compressed evenly without being pulled over to one side.



MILWAUKEE HAY TOOLS and FORKS all styles write for circulars and prices.



STUDEBAKER Buggies, all styles STUDEBAKER Carriages, STUDEBAKER Carts, STUDEBAKER Runabouts. Special prices given on STUDEBAKER and BROWN Wagons, Buggies and Carts.

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- 1st. It prevents dirt, hair and other substances from dropping into the milk while milking.
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The Southern Planter.

DEVOTED TO

**PRACTICAL AND PROGRESSIVE AGRICULTURE. HORTICULTURE.
TRUCKING, LIVE STOCK AND THE FIRESIDE.**

Agriculture is the nursing mother of the Arts.--XENOPHON.
Tillage and pasturage are the two breasts of the State.--SULLY.

67th Year.

Richmond, Va., August, 1906.

No. 8

Farm Management.

WORK FOR THE MONTH.

Since writing our article on Work for the Month for the July issue, we have had, through middle and Eastern Virginia an almost continuous showery season with several heavy thunder storms, but at no time rain sufficient to cause floods. The land, however, has been nearly all the time too wet for cultivation and crops of corn and forage have suffered somewhat from this cause. Wherever the land was put into good order before planting the crops, they are, however, looking well and promise good yields as the moisture has kept them growing ahead of the weeds. In the Western and Valley sections of this State and the adjoining Southern States drouthy conditions have prevailed and rain is needed. Whilst crops cannot be said to be suffering wherever attention has been given by due and frequent cultivation, yet rain now would greatly help them. The showery weather through the middle section of the State has caused some injury to the wheat crop in the shocks and hindered threshing. In the Western section of the State wheat harvesting has been concluded and the thresher is disclosing the fact that the yield is going to be better than was anticipated from the shortness of the straw and heads.

The condition of the wheat crop throughout the country is greatly in advance of earlier anticipations and bids fair now to be a record yield for the area. The average condition of winter wheat on July 1st was 85.6 as compared with 83 a month earlier, and

a ten year average of 79.4. Since the date of that report, harvesting has been in progress and the weather has been most propitious and now the thresher is recording the highest average yield per acre for many years from this crop.

The spring wheat average condition was 91.4 on July 1st, as compared with 93 a month earlier and a ten year average of 88.2 There are reports of rust appearing in the Dakotas and other Northwestern States, but there is as yet no serious damage done. Much depends on the weather from now on as to what the outcome of this crop will be, but present indications point to a crop in excess of that of last year from a smaller area. The yield of the winter and spring wheat crops together promises to be in excess of that of last year from a considerably larger area. The report as to the European wheat crops are not very encouraging and indications are that much of the wheat required by England and other importing countries will have to go from this side of the water. Canada is producing an immense crop and but for this factor the demand for our surplus would be good and prices would harden, but in the face of this great addition to the yield, we do not look for wheat to advance much in price unless bad weather at harvest should cut short the Canadian crop.

The Oat crop will be a much smaller one than the average and this should have a good effect on the price of corn.

The corn crop promises to be a great one, in excess

even of that of last year. The area planted is 1,500,000 acres greater than that planted a year ago, and the average condition is in excess of the ten year average. Latest reports from the great corn belt give most promising indication for a great yield, the weather being ideal for the crop up to this writing. In the South, the indications are for an excellent crop. The area planted is fully up to the average and the condition is high.

The condition of the cotton crop is below that of the ten year average, and the crop is likely to be considerably less than that of last year. The price keeps firm, and, in our opinion, is likely to do so, as cotton spinners are busy the world over and the demand for goods is great.

The tobacco crop is less than that of last year by about 40,000 acres, and the average condition is below that of last year. This would indicate that a much smaller crop is likely to be cured, but we doubt whether prices are likely to advance much, as the European manufacturers are supplying their needs largely from other sources than this country, where they consider existing prices are too high. Canada, like several European countries, is going much more largely into producing tobacco and this will necessarily curtail the demand for our crop. In both Canada and these other countries the average production per acre is much larger than in the South, and at present prices the growing of the crop is a profitable business. We must increase our yield per acre or be left in the race. We can do this as evidenced by the experiments made in Appomattox county both last year and previously, where more than double the average yield per acre was made by better preparation of the land and by using a fertilizer more carefully calculated to meet the requirements of the crop.

The peanut crop is likely to be a smaller one than that of last year, as the area planted is considerably curtailed and the weather has not been favorable for its best progress.

The apple crop in this State is now making a better showing than was indicated in our last report. It will be a short one, but not so seriously so as the reports we then published indicated. Many orchards now show a fair sprinkling of fruit, especially the young ones and those growing pippins. We believe that orchardists could themselves do much to prevent the happening of "off years" in the apple crop if they would only make it a rule to thin the crop every year and leave only sufficient fruit on the

trees to make a fine sample. The cause of the "off years" is, in our opinion (and in this we are largely borne out by careful orchardists who have tried the experiment of thinning) allowing the trees to overbear and then employing careless, inexperienced pickers who, in gathering the fruit, destroy the fruit buds which are the promise of the next year's crop. Thinning and careful picking would, in our judgment, insure annual instead of bi-ennial crops, and these of much more desirable fruit.

The harvesting and saving of the forage crops will call for attention this month. Do not let them get over-ripe before cutting, as they make a much more palatable hay when cut early. Cowpeas should be cut when the first pods are turning yellow and should not be allowed to remain broadcast longer than to allow the crop to wilt thoroughly. They should then be drawn into windrow and be allowed to cure in this condition for a day or two, according to the weather, and then be put into cock to cure out. In this way the leaves can be kept on the vines and a fine quality of hay be made. Previous to hauling the hay into the barn, open out the cocks and sun and air for an hour or two to drive off moisture caused by sweating and dew or rain, especially be careful to break out the bottoms of the cocks, which are sure to have absorbed moisture from the ground, and if this is not thoroughly dried out before being hauled will spoil the whole crop. Do not over-dry the hay. If there is some natural moisture in the hay, but no dew or rain water, the hay will sweat and keep well, but if dew or water be present it will spoil. Soy bean hay should be cured in the same way. It is less susceptible to damage from rain than cowpeas, and may remain in the cock for some time without being disturbed and without damage even though the weather be wet. Sorghum for hay should be allowed to lie broadcast after being cut until thoroughly wilted and largely cured. It will not easily spoil with wet weather. If the sorghum has been planted thin and the stalks are strong, let them wilt thoroughly before setting up in shocks. These, if well made and tied round the top, may stand in the field until wanted for feeding without any material loss; indeed, it is better to leave them there than to haul the crop into the barn, as the natural moisture in the stalks is very difficult to cure out to ensure the absence of moulding when stored in large bulk.

Millet should be cut when in bloom and before

any seed is formed. Cut at this stage of growth, it makes much better hay and a hay that can be safely fed to all kinds of stock. If seed has formed, the hay is never safe to feed to horses. Some can eat it without causing trouble whilst others are seriously affected by it. Millet which has made seed will also have drawn much more heavily on the land than if cut when in bloom. Where cowpeas and soy beans are grown for seed, the majority of the pods should be allowed to ripen sufficiently to ensure against the seed shrivelling when thoroughly dry, before the crops are cut, and the vines and stalks be then put up into cocks and shocks to thoroughly cure out before being hauled. Cowpeas for seed can be saved in this way quite as surely as when hand picked and at a fraction of the cost. They can be threshed out with the wheat thresher run slowly so as not to break the peas, or the shredder and husker will get them out. There is such a great demand for cowpeas now every year that it will pay any one farmer to save for seed a portion of his crop.

The corn and sorghum for silage should be ready for cutting during this and the following month, but we would urge that it be not cut too soon. It makes a much more satisfactory silage when the ears are well dented. Much of the sour silage about which we hear complaint is caused by the cutting of the corn or sorghum when very immature, at which time it is full of water and makes sour, innutritive silage. See to it that your silo is thoroughly cleaned out before being filled again, and the hoops tightened sufficiently to close all joints and any defective boards removed. Give the inside of the silo a coat of hot tar and pitch mixed before filling. If you have not yet built your silo, get to work at once. In our last issue we gave full instructions for building, and any party can get from the Experiment Station at Blacksburg a blue print of the silo there described, with enlargements of the details so that no local carpenter need have any difficulty in erecting the same. When filling the silo do not be in too great hurry with the work. Cut half a day and fill half a day, makes the best silage and enables much more to be put into the silo. See to it that the sides and corners of the silo are well packed and that the ears are evenly distributed over the whole surface of the silo during the filling so as to make a uniform quality of silage. When the silo is full, or the whole crop is put in, make level and then cover with a foot of cut straw or coarse

hay, chaff or cotton seed hulls. Water this thoroughly, and in a few days it will mould and mat together and make a perfect seal for the silage.

Second crops of clover and third and fourth crops of alfalfa should be cut and cured as they become ready. We know many who have already cut three crops of alfalfa and have promise of one or two more. These latter crops of clover and alfalfa require more time and care in curing, but are well worth this extra attention for the help they give in providing feed for winter. They should be put into small cocks as soon as ever they are sufficiently wilted to be fit to lie in a heap for twenty-four hours without spoiling. At the end of this time these small cocks should be opened out and dried off for several hours and then two or three small cocks be put into a larger one, and so proceed until the whole crop is thoroughly cured and standing in large cocks when it can all be safely hauled to the barn. If a cut crop of alfalfa should be caught in several days' rain, do not attempt to make it into hay, but haul off to the barn yard at once to make manure, leaving it broadcast in the field will only result in making worthless hay and the ruin of the alfalfa stand. The crowns of the alfalfa plants will rot under the hay and the plants perish. We have known two or three fine stands lost in this way. Haul off the spoiled hay at once and another crop will put up and can yet be made into fine hay.

August and September are the two best months in the year for seeding grass, clover and alfalfa in the South. In this issue will be found descriptions of hay crops made in Virginia, which would do credit to any State of the Union and in both the cases reported these crops were made on the so-called worn out land of Southside Virginia, where it was long thought that it was impossible to make the land produce hay. The crop cut by Mr. Sandy, of which we give an illustration, was a magnificent one, running to nearly four tons of hay per acre over the whole 12 acres, and this in a season which has not been propitious for hay-making. The secret of success in both cases was perfect preparation of the land before seeding. Mr. Clark, the champion hay grower of the country, will have to look to his laurels or Virginia will rob him of them. We cannot do better than repeat what we said a year or two ago on this subject of hay production in the South:

"The essentials for success in growing grass are

rich, finely-prepared land, the seeding at the best time with proper varieties of grass, the seeding of grass alone without a grain crop, and the keeping of stock off the newly-seeded land until a dense sod has been secured. One of the great causes of failure to secure a stand of grass is land inadequately prepared for the crop and not made rich enough. Whilst grasses are shallow-rooting plants it is essential to their success that land shall be deeply broken in order that the soil may be capable of holding a reserve of moisture to meet the needs of the crop during a dry time and over a series of years. It is also essential that there should be an abundance of available plant food in the soil, and nothing so much conduces to the availability of this food as repeated cultivation of the land so as to secure that to the depth broken the soil should be in as finely a broken condition as possible. Grasses will not germinate and grow well unless the soil is so finely broken as that the seeds are closely surrounded with fine soil into which the tiny rootlets can make their way and absorb the plant food, therefore, a complete fertilizer should be applied. Where barnyard manure can be had no better fertilizer can be used as the basis for the fertilization. This, however, can be usefully and profitably supplemented with acid phosphate or bone meal and possibly with some potash, though if lime has been, or is, applied to the land this may, in most sections of this State, be omitted, as there is a reserve of potash in most of our soils which only requires to be made available by the use of lime. Our own experience is strongly in favor of the use of bone meal as a permanent fertilizer for grass. It is slower in its action than acid phosphate, but more lasting. When acid phosphate is used it should be supplemented with some nitrate of soda, though we would not apply more than 50 to 75 pounds to the acre at seeding, and would top dress the stand in the spring with another 75 pounds after the grass has commenced to grow. Apply 500 pounds to the acre of acid phosphate or bone meal before seeding and work this well into the soil. The variety and quantity of seed to be sown is an important point. If the field is intended for a meadow then only those varieties should be used which mature at the same time. If intended for a pasture the greater the variety seeded within reasonable limits the better, as this will prolong the grazing period from spring to fall. The grasses in a pasture should keep succeeding each other all through the grazing season, and in the South this practically means all through the year. At the foot of this article we give

particulars of varieties of grasses to be sown on different soils for these different purposes. We are strongly in favor of heavy seeding. We would never sow less than two bushels of seed to the acre, and prefer two and a half, except in the case of timothy, when seeded alone, when a peck is sufficient. The majority of the grass seeds are so small and so liable to be of uncertain germinating power, owing to climatic conditions at blooming time, that it is never safe to rely upon light seeding. To be valuable, a meadow or a pasture should as quickly as possible be covered with a dense sod. This can only certainly be secured by the use of plenty of seed. Sow the seed broadcast—half one way of the field and half across the first seeding. Harrow in with a light harrow and then roll. Do not sow any grain crop with the grass. The practice of seeding grain with grass is one not adapted to the South. It succeeds in the North and in England, from which country it was introduced here. Here, instead of being a "nurse crop," it is a robber crop, depriving the grass seeds of the moisture and plant food which they need and causing the growth to be spindling and weak and then just when shade is most essential, the grain is cut and the grass perishes in the "hot weather. Sown alone, the grasses make a strong, vigorous growth and are gradually inured to the heat of the sun and go through the hot weather without injury, if only there be sufficient moisture in the soil. In thus advising seeding grasses alone, we speak from experience. We have tried both ways many times, and whilst we have often failed when seeded with grain, we never failed to secure a stand when the grasses were sown alone or only with clover. We are in favor of seeding some clover with all grass seeds, except timothy, which always sells best when clear timothy alone. The clover helps to make a heavier crop the first year before the grasses are thoroughly established and in the decay of its roots in subsequent years makes food for the grass. Sow the clover at the same time as the grass and not in the spring. If the fall seeding is killed out it may be resown in the spring. When grass is sown alone a crop may usually be cut the first year in the early fall. No stock, except it may be sheep or calves, should be pastured on the grass the first year, and these should not be allowed to be on the land when it is wet. Pasturing with heavy cattle or horses before the grasses have made a good root-hold and the sod is thickening, is certain to result in permanent injury.

Grass seed mixture for a meadow on good loam soil.—Orchard grass, tall meadow oat grass, meadow fescue, perennial rye, red top.

Grass seed mixture for permanent pasture on good loam soil.—Tall meadow oat grass, Virginia blue grass, orchard grass, perennial rye, red top, Kentucky blue, meadow fescue.

Sow with the meadow mixture six pounds of red clover and five pounds of white clover, or alsike clover.

Sow with the pasture mixture five pounds of red clover and five pounds of white clover.

In seeding both for a meadow and a pasture, add to the above mixtures two or three pounds of alfalfa seed per acre, and thus gradually secure infection of your land with alfalfa bacteria so that it may be prepared to grow that crop when desired.

From the first of August to the middle of September is the best time in the year for seeding alfalfa in the South in all sections of the country East of the mountains. In the mountain sections it should be seeded from April to June. We have written so much on the importance of making this crop one of the staple crops of the South during the past three or four years, and have published so many reports of success made in growing it here, that we suppose there cannot be a farmer in any section who does not realize that he ought to have it on his farm. He can have it if he will only take the proper care to secure it. It grows in every section from the sea coast to the mountains luxuriantly and yields from three to four cuttings every year wherever conditions have been made right for its growth. To make these conditions is a matter easily within the power of every farmer. He must first realize that to grow a crop successfully like alfalfa, which gives anywhere from four to eight tons to the acre of well cured hay in every year, and will continue to do this for ten or fifteen years, from one seeding, that he must have naturally fertile, well prepared land, made richer by the addition of manure and fertilizer. He must also have sound, well drained land, for the plant cannot succeed in water-logged soil. He must also have land with the subsoil well broken and permeable by the roots of the plants and which will at all times hold sufficient moisture to ensure the feeding of the plant. He must also be certain that he has land free from sourness, for the bacteria on which the growth of the crop largely depends, cannot exist and do their work in acid

soil. If his land does not comply with these conditions, he should not sow the crop until he has made it satisfy them. Now is the time to commence to do the work. Select a piece of good, clean, loamy land with a tendency rather to be heavy than sandy. Plow it deeply and subsoil it. Then spread on it from 20 to 25 bushels of either rock or shell lime per acre, and harrow this in lightly and let lay for a week or ten days. The land should previously have been worked either in a hoed crop or have been plowed and repeatedly harrowed during the summer to ensure the germination and killing of all the weed seeds possible, as weeds are one of the most determined enemies of alfalfa and will certainly ruin any stand if present. After the lime has been mixed with the soil for a week or ten days then commence to work the land with the harrow, cultivator and roller, or plank, drag and continue this work until the finest seed bed possible is made. If you have some good, clean well-rotted manure, give a good dressing of this and add 400 to 500 pounds of bone meal per acre and work this well into the soil. At the last working of the soil spread on the land 200 pounds of soil per acre from an old alfalfa field and harrow the same in lightly. If there is no such field in your section, you will find this soil advertised in the Planter. In the absence of the infected soil, send to the Experiment Station at Blacksburg, Va., and get a supply of the bacteria which is supplied at the cost of 25 cents per acre. Follow the instructions sent with the bacteria as to the proper way in which to inoculate the seed and then sow the same at the rate of 20 to 25 pounds to the acre. Sow half the seed one way of the field, and the other half the other way and harrow in, and if the land is dry enough roll. In buying the seed be careful to buy only from responsible seedsmen and stipulate that you will only accept the seed with a guarantee of freedom from adulteration or subject to examination by the Department of Agriculture at Washington. We have had a number of cases this year reported to us where the stand has been wholly ruined by adulterated seed having been sown. If all these conditions are complied with and the work properly done, a stand should be secured which will give good crops of alfalfa for years to come. When the seed has made a growth of four or five inches, run the mower over it and leave the clippings as a mulch. This may be repeated once or twice before leaving the stand to make a crop of hay. Each time it is clipped it will start out again from the bottom

and thus thicken the stand until the whole field is covered thickly with the plants and large crowns are made which will send up a heavy growth. To ensure the continued fertility of the land and constant heavy growths, the crop should be top dressed with good, clean, well-rotted farm yard manure every year, or 400 or 500 pounds of bone meal, acid phosphate and muriate of potash per acre should be applied as a top dressing each spring, making this mixture of 200 pounds of bone meal, 200 pounds of acid phosphate and 100 pounds of muriate of potash.

The seeding of crops for providing winter and spring grazing and spring and early summer forage crops and for a cover for the land to conserve and add to its fertility, should have attention from this time up to the middle of November. The first crop to be seeded should be crimson clover or a mixture of crimson clover, wheat, oats and rye. This crop may be seeded from now to the end of September. The next to be seeded should be hairy vetch, or a mixture of hairy vetch, wheat, oats and rye. This crop should be sown during September and October. English vetch may then be seeded during September, October and the first half of November, and Rye alone may be seeded in November. All these crops have great value as improvers and conservers of the soil fertility. They all add humus to the soil when plowed down, and humus is more needed in all Southern soils than fertilizer. The clover and vetches, in addition to the humus, add nitrogen to the soil. We prefer to sow the clover and vetches in mixture with wheat, oats and rye, as this ensures some crop covering the land even should the clover and vetches be killed out by drought or a hard winter. The crimson clover should be sown at the rate of 10 to 15 pounds per acre, with 3 pecks of wheat, oats and rye in equal parts. The vetches should be sown at the rate of 2 to 3 pecks per acre with half a bushel of wheat, oats and rye in equal parts. All these crops are greatly helped by a dressing of lime, say 25 to 50 bushels to the acre, so as to correct any acidity in the soil and ensure the growth of the bacteria upon which the successful growth of all leguminous crops largely depend. Wherever land was well prepared for the previous crop, good stands of these winter cover crops can usually be secured by merely breaking the land with the Disc or Cutaway harrow both ways and then sowing the seed and covering by the use of a spike tooth har-

row. Don't leave any of your stubble fields to merely grow weeds all the fall months and then to be bare all winter, leaching fertility away and making labor for another year. Cover then, with a carpet of green, which will give feed for stock, prevent loss of accumulated fertility, and add nitrogen to the soil. By growing crimson clover and the vetches you can add to the soil of each acre nitrogen which would cost you from \$15 to \$20 if bought at the fertilizer factory, and this will cost you nothing but the few cents necessary to buy the seed and the labor of sowing it. If the clover crop is wanted only for pasturing and to plow down, a pound or two of Dwarf Essex Rape, or a like quantity of turnip seed per acre, may be sown with the clover and wheat, oats and rye, and this will add to the feeding value of the pasture. If the crop is wanted for hay in the spring this should not be done, as these crops cannot be made into hay.

Although too early to sow oats or wheat, it is not too early to begin to prepare the land for these crops. Their success depends much more on the preparation of the seed bed than on the fertilizer applied. Very much of the want of success in securing heavy yields of grain in the South is attributed to poor preparation of the seed bed. Winter oats, which are the most profitable oats to grow in the South, should be sown not later than the middle of September, if the best results are to be had, and, therefore, it is not too soon to begin the work of preparing the land. Plow deeply and work with the Disc and drag, harrow and roller until a fine seed bed is made. The sub-surface should be compact with the surface a fine mulch of soil, and then put the seed in deep with a drill or cover it with a Disc harrow or cultivator. Shallow seeding and poor covering of the seed is largely responsible for winter killing. Land intended for wheat should also be plowed as soon as possible, so that there may be plenty of time in which to prepare for the seed bed. Wheat requires a deeply broken soil finely prepared and well compacted below the top three or four inches before the seed is sown. Land cannot be got into this condition without time being spent upon it, therefore, begin the work at the earliest opportunity.

MR. CLARK'S HAY CROP.

Editor Southern Planter:

Here comes the report of my first grass crop, 1906, Timothy, Red Top, and Alfalfa. The season has

been cold and backward, for that reason the total weight is somewhat less than it would otherwise have been, especially in Alfalfa, for that is a hot, dry weather plant. Again, last winter was a hard one in this section for all kinds of grain and grass, some fields made the mid-winter growth and were badly injured, but mine came through the winter all right, in fact, they always do, I do not think that in 20 years I have lost a rod in winter killing. Many said alfalfa would be killed out, but it came through all right.

My 11 acres of timothy and red top produced the first crop this year, 61 loads, total weight 52 1-2 tons, four acres of which were seeded September 10, 1905; eight months and fifteen days from the time the seed left the bag; 40,900 pounds of dry hay, over 5 tons to the acre, 3 1-2 acres of alfalfa cut June 10, one ton to the acre; second cutting due

July 10, thirty days from the time of the first cutting; think there will be at least 1 1-2 tons to the acre of dry hay second cutting; present outlook is that it will produce a full increasing crop every 30 to 35 days. I shall look with interest to its rise and progress and think it will produce four crops this season, possibly five. I am doing the best I can to make it produce a large growth. I would not advise every farmer brother, however, to rush into alfalfa, but I think that some of the present waste land in this Eastern country can be utilized in the production of alfalfa. I personally know of thousands of acres of alfalfa in the arid regions that have been cultivated by the use of Clark's Cutaway Harrows every third year, with a little more new seed, these fields have been thus treated for 15 years, and, to my certain knowledge, are now better than at the start.

G. M. CLARK. *Higanum, Conn.*



MR. SANDY'S HAYFIELD IN SOUTHSIDE VIRGINIA.

HAY GROWING IN SOUTHSIDE VIRGINIA.

Editor Southern Planter:

I am sending you by to-day's mail a picture taken

on my farm during the recent haying season. This field of twelve acres was seeded about one-half to wheat and the rest to oats in the fall of 1904. After

harvest, the land was plowed ten inches deep. It was then harrowed and rolled every ten or twelve days until August 10th. I then seeded the land to Timothy, herds grass, clover, and alfalfa, twenty-five quarts to the acre, using 400 pounds of pure raw bone to the acre. I ran the drill, seeding one-half the seed and raw bone one way and then crossing in the opposite direction with the other half. The land was then rolled both ways with a heavy roller, leaving it in fine order. The seed came up well, and by cold weather the grass had covered the ground. Using a manure spreader, I top dressed it during the winter with manure, four tons to the acre. The hay was very heavy, it being impossible for the mower to part it for the horse to walk in next to the standing crop. I hauled in 70 loads of equal size from this field (one of these loads weighed fifteen hundred pounds), the crop thus averaging a little over four tons to the acre. I want you to publish this in your valuable paper, thinking my experience may be of benefit to some one. Three things are essential to growing grass—First, the land must be put in perfect order; second, the seed must be in at the proper time; third, the land must be fed. It will return to you ten fold. Southside Virginia, I am convinced, can be made to produce as much hay of fine quality as any section in the United States. I wish all of our farmers would make a special effort in this direction.

T. O. SANDY.

Nottoway Co., Va.

LEGUMINOUS CROPS FOR SOIL IMPROVEMENT.

Editor Southern Planter:

Readers of the Southern Planter may be interested in my experience with leguminous crops in Delaware. There are soils in this State that are just as unproductive as are found anywhere, which, by the use of these crops, can be made to yield abundantly.

Oats seemed to be an uncertain crop so it was cut out of our rotation and crimson clover substituted. This is sown in the corn just after the last cultivation. I found that a better "catch" could be had by sowing across the field both ways through every fifth row, sowing half-quantity each way. I used the Cahoon seeder, which does the work very well. Unless there is likely to be a good rain within a week after sowing, it is well to run spike tooth cultivator through each row to cover the seed.

By fall the ground should be covered with a thick

mat of clover. This is not injured by the tramping it gets during corn harvest, and the spring following it stools out in great shape. By the middle of May it stands about 1 1-2 to 2 feet high, or more, with long crimson heads in full bloom. Chains are put on the plows and this rich, rank growth plowed under and the ground rolled. It is kept harrowed off and on until about the first of July when cow peas are drilled in at the rate of one bushel to the acre. These attain a height of about two feet by September and are plowed under the same way as the crimson clover. Wheat is then drilled the last of the month or early in October.

It seems strange that farmers will go on year after year paying out their money for ammoniated fertilizers, which cost about 15 cents a pound, when they can supply their soils with nitrogen through the use of leguminous crops. This method of handling the soil has more than doubled the yield of wheat and other crops for me. **It is not necessary** to treat a field this way oftener than once in five or six years. The two crops can be pastured to some extent without injury to them or the stock, if done judiciously.

I have cut a crop of cowpea hay and still raised a good second growth to plow under in time for drilling wheat in September. Cowpeas grow very fast and make a rank growth even on poor soil.

With the use of leguminous crops, the farmer need buy only phosphoric acid and potash in the form of fertilizers, reducing the cost from between \$20 to \$28 to about \$11.50 per ton.

Leguminous crops have the power not only of transmitting nitrogen from the air to the soil, but they supply the ground with humus and make it in a better mechanical condition for crops.

L. H. COOCH.

Our experience in using the cowpea crop as a preparation for wheat is that there is some risk involved in plowing the whole crop down in September. The land in the South is then still hot and souring of the soil is possible unless lime be applied on the land after the peas are plowed down and be worked in. Again there is the risk of making the land too "puffy" for the best doing of the wheat crop, which needs a firmly compacted sub-surface for successful growth. In our judgment, the best way to utilize the pea crop is to cut it into the surface soil with a Disc harrow, run both ways of the land, and not to plow the land at all. This system presupposes that the land was deeply plowed and well prepared

for the pea crop. In this way the needed compactness of the subsoil is retained whilst the valuable fertilizing qualities of the pea crop are kept near the surface where the young wheat plant can utilize it them at once.—Ed.

GETTING HUMUS.

Editor Southern Planter:

Some year ago at a Farmers' Institute a chemist told the farmers that the only use for commercial fertilizers was for the direct production of sale crops and that their application was not intended for the permanent improvement of the soil. It seemed to me that this had been just what the farmers had been doing for years, especially in the South, and all the time they have gotten poorer in cash and the land has gotten less productive. So I at once combatted that idea and said that I considered that the great value of commercial fertilizer comes from the ease with which it can be made to restore the fertility of the land. Dr. Thorne, the Director of the Ohio station recently wrote what should be taken as a maxim by intelligent farmers everywhere, "Sand and clay are but the skeleton of a soil. Humus is its life." No truer words were ever written and I would like to impress them on every farmer.

Humus darkens the soil and makes it more retentive of heat. It is the greatest moisture-retaining material that goes to make up a soil. It renders the soil mellow and prevents baking, and its character of retaining moisture enables the fertilizers applied to be dissolved so that plants can use them. Further, by the humic acid it furnishes it will tend to make available the phosphoric acid in pulverized rock that the chemists attach little value to, because of its insolubility. Then, of course, it is the portion of the soil that contains most nitrogen and is the home of the nutrifying bacteria that change the organic soil because it keeps it well supplied with these living forms that work for the farmer and board themselves.

You can galvanize into a semblance of life the clay and sand skeleton and get crops out of it and leave it in a worse condition than before. But the true use of commercial fertilizers is to enable the farmer to get more of the stock feeding and soil feeding legumes on his land, and in doing this he need not use a complete fertilizer, for if the legume crops are well supplied with phosphoric acid and potash they will do the rest.

A dairyman on a little farm near Philadelphia boasted that he had brought the farm to a high state of fertility and had never used commercial fertilizers. But he bought grain which had been grown on other men's land and fed it to his cattle, and thus was really buying fertilizer. But few are so situated that they can do this profitably and these must buy the mineral matters that will enable them to grow more of the nitrogen fixing legumes. There is no way in which the farmer can get more forage for his stock and more humus-making manure than by the use of phosphoric acid and potash on the legume crops. Bigger legume crops mean more feeding material, more manure and more humus in the soil both from the roots left there and the manure made from the feeding. Use the mineral elements freely, even lavishly, for the promotion of the growth of clover or peas, and you need not worry about the nitrogen, for they will give you plenty for the succeeding crop.

W. F. MASSEY]

WELL PREPARED SEED BED FOR WHEAT.

Editor Southern Planter:

Very much has been written about the importance of a well prepared seed bed for most any crop, but the actual difference in the yield of a crop from a well prepared seed bed and a poorly prepared one is rarely ever seen demonstrated by the average farmer. If one would actually see the difference in yield, no further argument to convince one is needed.

It is the rule on a large number of farms of Southwest Virginia to seed corn land to wheat. This land is very often prepared for wheat by simply scratching over the surface of the soil with small cultivators and drilling the wheat into the soil thus broken. Some times the soil is hard and weedy and the seed bed is extremely poorly prepared. The yield of wheat on such prepared soil runs from six to ten bushels per acre, and the farmer says "it is a poor wheat year. Fertilizers do not pay."

I saw a small field of land that was well broken with a large turning plow last August. It was harrowed several times and the rains packed it down before sowing time in October. An excellent seed bed was made and an estimated yield of twenty bushels per acre was harvested from this soil this summer.

Another field near it (slightly better wheat soil) was merely scratched over with small cultivators

before the drill was put on it. The yield from this field was only about ten bushels per acre. Weeds came up thickly among the wheat before harvest and greatly injured the crop, while in the other field scarcely a weed could be seen. On the indifferently prepared soil the wheat did not start off well during the dry fall. It branched but little, and the stand was only about two-thirds what it should have been, though both fields were drilled about the same way and at the same time. The field that was well prepared, having a good dust mulch on top, afforded ample moisture for the wheat during the dry fall weather, consequently, the wheat grew on continuously from the start. It matted over the ground well before freezing weather set in. The extra preparation of the soil did not cost over two dollars per acre, therefore, a clear gain of eight dollars per acre was made by good preparation of the soil, estimating the wheat at one dollar per bushel.

Furthermore, grass seed was sown on both fields last fall and the field that was well prepared has a good "stand of grass" with a clean stubble, while the other has also a good stand, but an immense growth of weeds are seeding over the land. Now is the time for the farmer to figure on the cost and the gain from a well prepared seed bed this coming fall. The acreage sown to wheat can almost be cut down half without lowering the yield if the seed bed is well prepared. I believe the above statement is about true in reference to all Virginia at the present time.

Instead of "taking chances" with a bad seed bed, let us try "taking chances" with a good seed bed. Use the turning plow, harrow, plank drag, or roller until we get a good, firm seed bed with a dust mulch on top.

R. H. PRICE.

Montgomery Co., Va.

HAYING AT HUNTERS' FARE FARM.

Editor Southern Planter:

Last summer, in an article under the head of "The Experience of a New Comer," I gave you some idea of the conditions confronting my brother and myself in our effort at making a so-reputed "worn out" farm come up to a producing standpoint. I will endeavor to give you a little illustration which will show what success we have met with. But first. I want to say that great credit is due to that best of agricultural papers, *The Southern Planter*. It

is impossible to estimate the amount of good this paper is doing for the South.

It has sown the seed of curiosity, inquiry, anticipation and knowledge North, East, West and South relative to the possibilities of the South that will last years. Just how it first came into my possession I can't recall, but this I do remember distinctly, that my interest grew the longer I read it, until I was forced, out of curiosity, to investigate. After several trips through the South, mainly in Virginia, my brother and I purchased what was recognized locally as the poorest, worn out place in that section.

Our incipient ideas as to the soil, seasons, method of cultivation, needs and requirements of the soil were had through the medium of *The Planter*, so that we were able to undertake our task understandingly. The frequent mistakes a new-comer makes is in starting with ideas that bring success in the North and West. Let him first get a knowledge of the conditions locally as to soil, crops, seasons, seed and then the requirements of his soil, and lastly, not to expect too much from the first two crops. A person of average intelligence, with the aid of *The Planter* and some knowledge of the soil and farming and love for work, will make a success in the South.

Without fearing to be egotistical (as most credit is due my brother) I can safely say that we can show progress and results for 2 1-2 years' work with limited capital, such as is seldom shown in that time anywhere, all things considered. We have crops growing that would surprise many, over the major portion of 400 acres of land that had been abandoned as too poor to crop. To give you a detailed account of the whole would take too much valuable space, so I will just mention one, not out of mere pride, but with the hope that it may give encouragement to prospective land buyers. Out of necessity to produce our own feed, we were compelled to put corn into land that had seen nothing else for 25 years, we are told, and as to the last crop, we can vouch for the size of stalk, which was about as thick as a man's thumb. Well, the prospect was not particularly alluring, but we turned under a maximum crop of weeds and plowed deep and gave it fine preparation. We had a right fair crop of corn. We next plowed it and prepared a very fine seed bed and sowed half to alsike and the other half to red clover. Last year we cut a small crop of hay from it and

this year the season, as you all know, was hard on grass.

On June 2d, we cut about two acres and took off over five tons of well-cured hay, and there are 10 or more acres left. Now, this was not the choicest spot selected, but simply cut first, as it was the furthest advanced. I can assure you we were agreeably surprised, as we were not looking for such results. Now, there was no more done to the land than what I have mentioned, and no fertilizer applied to either corn or grass seed. Deep ploughing and an almost perfect seed bed is the only solution. Last year no man would have looked for such a crop as this year is giving.

Now, I read a good deal about alfalfa efforts in Virginia. We can't boast of any great yield of hay, but we can show a nice stand on land that was as poor as land can get. If 10 to 15 successive crops of corn fail to impoverish upland soil, I hardly know how many are required to do it.

During our first year we put it in spring oats, and in fall (1904) plowed about three acres and gave a light (we had no more) dressing of manure and applied lime at the rate of a ton to the acre and sowed our seed. We had a stand on about two acres of it and in spring of 1905 gave a top dressing of bone meal, 200 pounds to the acre, and cut a small crop of hay in August. This spring we top dressed with manure, and on May 26th, we cut 3 tons of well cured hay from the 2 acres, and on June 26th, we cut 2 more tons, and will soon be ready for another cutting.

The clover first mentioned and cut June 2d is in fine bloom and ready to cut again.

Now dont you think this is doing well on such land as we had to begin with and no time or resources to give it any better treatment before hazarding such crops?

H. B. BUSH & BRO.

Powhatan Co., Va.

LARGEST TOBACCO FIELD.

Near Walkerville, Ontario, Canada, one can see the model tobacco farm of Hiram Walkers' Sons, which is managed by Mr. T. S. Biggar, a Wisconsin tobacco expert. Two hundred acres of tobacco are annually cultivated on the farm, and it is all in one field, under one enclosure. The average yield per

acre here is 2,125 pounds. This is probably the most model and up-to-date tobacco farm in existence today. The mammoth curing sheds are scientifically constructed and conveniently located. The machinery used is the most modern that can be had. The system of fertilization is the most complete ever devised. The manure from immense cattle barns (where 4,000 head are always feeding) is made into a liquid in a huge reservoir from which it is pumped by hydraulic pressure through a system of cast iron pipes (laid for this specific purpose) into the tobacco field. This whole farm is laid out like one immense flower garden and there is a time to do everything and everything is done in its time. Just now (March 20th) the immense plant beds are being put in shape to grow the millions of plants that will be needed to set the crop. As far as the eye can see there is a long white strip of glass sash that covers the hot beds, and an immense water tank stands near from which through another system of pipes the water is taken to every part of the plant beds. A private railroad enters the farm, from which supplies are unloaded, and when the leaf is ready it is loaded directly on the car.—Southern Tobaccoist Journal.

GUERNSEY CATTLE.

Editor Southern Planter:

I have just returned from Cookeysville, Md., where I visited the hospitable homes of Jos. McK. Merryman and E. Gittings Merryman, advertisers in your valuable journal and breeders of Guernsey cattle and Berkshire hogs. I purchased from Jos. McK. Merryman a bull calf out of imported Lady Simon, and from E. Gittings Merryman one cow and two heifers, all registered stock. It is worth the journey to go there and be entertained by these gentlemen and take a drive through their fine farms in the Green Spring Valley. The Guernsey cattle are as fine as I ever saw, and the farms in the highest state of cultivation. The cow barns are models of cleanliness and convenience, and I would heartily recommend all contemplating purchasing Guernsey cattle to look at these cattle, as there is a selection at both places to please the most fastidious.

Mr. and Mrs. Jos. McK. Merryman are going to exhibit their herd at our State Fair in October, and Virginia breeders of Guernsey cattle will have to show some good ones to beat the Grove farm herd.

T. C. CUMMINS.

King William County, Va.

Trucking, Garden and Orchard.

WORK FOR THE MONTH.

Fruit and vegetable crops should be carefully gathered as they mature, and become fit for market or for storage for winter use. As soon as gathered, put them under cover, and spread out to cool, and then cull out all defective specimens, and ship or otherwise dispose of these at once, as they will not keep. If shipped to market, send them as culls, and don't mix with perfect ones, or the whole shipment will sell at only the value of the culls. Send the perfect fruit and vegetables to market in clean new packages and packed neatly and attractively, and mark them with the grade, and thus acquire a good reputation, and this will materially help in securing good prices in dull times. Thousands of dollars are lost every year by growers of fruit and vegetables through not observing these rules. We often see packages opened by the commission merchants which look as though the contents had been pitched in with a shovel, good, bad and indifferent, all mixed together, and the packages dirty old boxes and barrels. Such consignments never realize their value as they are difficult to dispose of at any price. Send a few culls and defective products to market as possible, as these only glut the market and tend to depress the value of good products. Such defective products are usually worth more at home for feeding to stock than the small sum they realize after paying freight and other charges.

Fall cabbage seed should be sown at once on rich beds in a moist, shady situation, and the growth should be pushed on as much as possible by the use of a little nitrate of soda at intervals. In this way the plants can be made to grow so fast as to escape injury from bugs and worms. The plants should be ready to set out in September, and they will then make good heads before frost. This crop can be successfully grown in this way in places where it almost always fails from the too early sowing of the seed. Flat Dutch and Savoy are good varieties to sow.

Broccoli plants may be set out during the last half of the month. If raised at home they should be pushed on with a little nitrate of soda. They make heads like a cauliflower, and are good for home con-

sumption, and sell readily on the market in November and December. They should be handled like the cabbage crop.

English peas and snap beans may be sown for a fall crop in Eastern Virginia and North Carolina. They are uncertain as to yield, but if the fall be mild and frost hold off, they make a crop which is very acceptable for the table, and always sells well on the market.

Kale and spinach for fall cutting may be sown during this month.

Celery plants should be set out if not already done. In our last issue we wrote fully on this crop, and to that issue refer our readers. When the plants are already set out, they should be pushed on by cultivation, and by being kept moist. Put some manure into an old barrel, and fill up with water, and use this around the plants, but not on them, and it will help the growth very much. As the plants grow a little soil should be drawn to them to keep them from spreading out on the ground until they are fully grown.

The land intended to be planted in strawberries should be frequently cultivated to induce the weeds to germinate and to kill them out. Next month will be early enough to set out the plants. The land may, however, be fertilized and got ready now, so that the plants can be set out at any time on short notice. In preparing a fertilizer use potash freely, as this tends to the production of firm, highly colored fruit.

Cultivation should cease in the orchard and small fruit patches, so that the wood may ripen, and the fruit buds be set.

All land from which crops have been gathered, and which is not needed for other crops for winter and spring use should be cleared of all trash and weeds, and be plowed and sown with crimson clover.

FERTILIZING A YOUNG ORCHARD.

Editor Southern Planter:

A friend in the upper Piedmont country of North Carolina writes: "What amount of fertilizer should

be put around an apple tree planted last spring and one planted this spring? What analysis should it have of phosphoric acid, nitrogen and potash? I have 3,000 apple trees and 1,500 peach trees that I want to fertilize if it is not too late "

Since this request came the first of June, it is evident that our friend is rather late in thinking about the fertilization of his trees. The annual growth of most fruit trees, especially in the South, is finished by July, and the fertilization should have been done before the growth started in the spring, for no matter how available the materials may be, they have got to get into solution in the soil before plants can use them, and the hard wooded trees are rapidly sucking up from the soil the materials they need before there is any appearance of foliage. Very little can be done by applying fertilizers to the young trees in the summer. If the trees were in a fruiting condition it would be somewhat different, since the perfecting of the fruit calls for an abundant supply of the mineral elements in the soil long after active wood growth has been completed.

Still, though late for immediate effect about 300 pounds of acid phosphate and 25 pounds of muriate of potash may with advantage be sowed broadcast, and then drill in between the rows cow-peas. Use these for the benefit of the land and trees entirely, and let them ripen on the land, and as the leaves begin to fall sow 15 pounds per acre of crimson clover. This will get into bloom early in the spring, and should be plowed under as soon as in bloom. This will give you all the nitrogen needed by the trees, and by a hoed crop of potatoes planted between the rows. Then I would give each tree in a circle around a little further than the branches have extended, the same fertilizer mixture, calculating the area which this would make in an acre of the trees and using the same proportions at rate of 400 to 500 pounds per acre, and a similar amount in the furrows for the potatoes. The potatoes will be off by July, and then you can sow peas and crimson clover again. This growing of green crops that get nitrogen from the air and furnish humus to the soil will induce a rapid growth of the trees, and that is what you want in an orchard while the trees are forming. But a very rapid growth is not conducive to early fruiting, so after the trees (the apples at least) have developed to a size when they should fruit, we would put a slight check to this rapid growth by seeding the orchard down to grass. But do not make a hay field or a pasture of it.

Fertilize the grass annually with the mixture advised, and mow it two or three times, and spread it under the trees for a mulch, and you will get apples, and should not try to get anything else out of an apple orchard if you want to grow good apples profitably.

The peaches are short-lived, and the fertilization and cultivation with the green manure crops should be continued with them, and by the time the orchard is exhausted you will have a fertile piece of land for any crops.

W. F. MASSEY.

SOME PROFITABLE DOUBLE CROPPING.

Editor Southern Planter:

How to get the most returns from the smallest acreage with least expense of money and labor is the problem of intensive gardening and farming. Some combinations of crops cause too great interferences with the cultivation and successful fruiting of one or both to be profitable. Here are several which have succeeded with me:

1. *Lettuce on the asparagus bed.*—My asparagus is in an old-fashioned bed with double rows. The high fertility required for both vegetables, the soil thrown up above the surface, giving early, dry and warm conditions, seem to make this a very successful combination. The lettuce heads from the asparagus bed have proven superior to those which come a little earlier, with forcing, from the cold frame.

2. *Navy beans between sweet potato rows.*—Here again soil conditions required are about the same, and I find I can easily raise one-half bushel of navy beans to each ten bushels of potatoes. The beans must be put in in July or early in August, at the last cultivation of the potatoes, and may be gathered out of the way before the potato crop is harvested.

3. *Blackeye peas with the cucumbers and canteloupes.*—No. 3, as is the case with No. 2, in fact, will succeed best on light soil, where there is not too great encouragement of rank growth of top. Some people who have tried this plan have told me that the flavor of the canteloupes is injured by this combination, but such has not been my experience. The peas must not be put in until the melons have well started to vine, and rightly managed, the foliage is certainly a protection against the burning of the melons under our August sun.

W. D. SMITH.

Chesterfield county, Va.

A METHOD OF TRAINING TOMATOES.

Editor Southern Planter:

Training up tomatoes away from the ground is probably impracticable in field cultivation, but in the home garden they must be put on stakes or frames to secure the best results. This is a safeguard against rot from the fruit coming in contact with the ground; but more important to my mind than this advantage are two, that thus continuous cultivation is possible all the season, securing continuous fruitage; and that with the foliage at the top, where it should be, there is a minimum of burning from the sun.

A method which I have used for several years has the recommendation at least of having been generally adopted by neighbors. The distinctive feature is the stake used, which is preferably of oak, from 1 1/2 to 3 inches in diameter at base, and 7 feet long, with the lateral branches cut two inches—no longer, for they would be in the way of cultivation.

The best to be had are the tops—laps—from oak in cutting cord wood, and frequently four or five good ones may be taken from one tree; but anywhere that there is young oak growth, an abundance of suitable material may be found, and one hundred may be cut with a sharp axe in two or three hours. Sufficient pointing of the ground end is possible by using slanting strokes from both sides when cutting. Some of the side branches may best be lopped before the sapling is cut loose.

The lateral shoots at *a*, *b* and *c*, (Fig. 2), must be pulled out as they appear. The plants in the early stages will need some slight tying to stakes, but later in the season will, with some assistance, find support in the crotches of the stake.

W. D. SMITH.

FIRE BLIGHT OF THE PEAR, APPLE AND QUINCE.

Editor Southern Planter:

Every one is familiar with the appearance of pear, quince and apple trees when affected by blight. The specific cause of this disease is a bacterium (*micrococcus amylovorus*), which has often been grown in artificial cultures and inoculated into the trees to show that it causes the disease. The blighted twigs that remain in the orchard over winter carry over the germs, which renew the disease the following spring. Sap is liable to ooze out in the early spring around the edges of the blighted spots of the previous year, carrying the cells of the blight bacteria in great numbers. If these cells are brought into contact with the bloom or tender shoots, or any wound, so as to gain access to the sap of the tree, a new case of blight is very likely to occur. Bees and other insects may come in contact with the sap oozing from these spots, and then in visiting the flowers scatter the disease very widely.

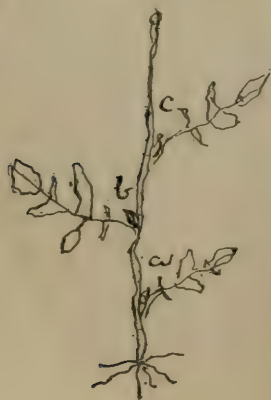
The general recommendation a few years ago for controlling this disease was to cut out the blighted parts several inches below the lowest point of injury. The blighted leaves adhere to trees longer in the fall than the healthy ones, and can be distinguished readily late in the fall, after the other leaves drop, but in large trees it would be an endless task to cut out all the affected twigs.

While it is well known that this disease is caused by bacteria, soil conditions have very much to do with its prevalence, some conditions being much more favorable to its growth than others. We have often noticed the blight to be very bad in the trees to which a large quantity of stable manure or nitrogenous fertilizers had been applied, while other trees near, to which the application had not been made, were practically free from the disease.

Nitrogen appears to promote growth, while fertilizers rich in phosphoric acid (South Carolina rock and other phosphates) and potash help to ripen up the wood and make it more resistant to outside influences.

Experiments were conducted by Prof. W. B. Alwood, at the Virginia Experiment Station in 1901, 1902 and 1903, with the object of attempting to control this disease by fertilization, and thereby stimulate the trees, and correct, as far as possible, the soil conditions that appear to be favorable for its development.

In these experiments 2 parts acid phosphate (14 per cent. to 16 per cent. goods) and 1 part of muriate



of potash (50 per cent. goods) were mixed together and applied freely over the soil about the trees. From 5 to 15 pounds were used, according to the size and condition of the trees treated. It was applied by scattering over the soil for a radius of 6 to 10 feet from the trees. Pear trees only were included in this experiment, and the treatment was applied before the buds pushed out in the spring. It was worked into the soil at that time, and the trees were left for the rest of the season uncultivated.

The blight was checked almost entirely in this way, and this treatment has been practiced since by a number of orchardists in the State, who claim good results. If this treatment is followed up from year to year, as indicated by the condition of the trees, we feel sure that the disease can be prevented to a great extent. Apple orchards can also be benefited to a great extent by the same application.

J. L. PHILLIPS,

State Entomologist and Plant Pathologist.

SOME FIRST TRIALS.

Editor Southern Planter:

How ever many other people may have proven the value of any agricultural operation, it is your own first trial which is pretty sure to make a convert or an unbeliever of you.

Here are some of my "first trials" in my three-acre garden spot this year.

I have always wished to try subsoiling, but my land lying in small plots, with various fruit trees and grape vines to be dodged, has made the operation seem tedious and expensive. This spring a kind neighbor, who is a "really and truly" farmer, did extensive subsoiling and gave me a half day with his heavy plow and subsoiler, using both with two horses. I did the harrowing with a single horse, and it was something for a three-acre farmer to be proud of, to have five horses at one time on his patch.

But as to results: Increased growth so far everywhere; more than the unusually good season deserves to have the credit for. The Sunlight potatoes came rolling out of the ground, of such size that the head gardener says she must buy a new and larger saucepan to boil one a piece in, if they keep on growing. Corn, tomatoes, beans, canteloupes, everything bids fair to beat all records.

Count one for subsoiling.—I must give part credit for the extraordinary yield of the potatoes to an-

other new trial, which was rejecting the "bud" end of the potato in planting. I am hereafter a sure convert to that policy.

Another new trial which will need a second report to complete, will be the possibility of transplanting peanuts. This is not altogether a new trial, for I have done it before on a small scale, filling in vacant places in the rows. This year, however, the children threatened a strike unless the yield of two or three bushels which we raise for home consumption was increased to meet growing appetites, so as the original rows could spare one-half their plants, in thinning out, we have duplicated the original planting. The plants all seem to have rooted a second time successfully, and while not equal to those in the original rows, will make good come pulling time, I reckon.

W. D. SMITH.

Chesterfield county, Va.

CHEESE MAKING IN SOUTH CAROLINA.

Editor Southern Planter:

The short letter Mrs. Voigt had in the June Planter has brought her a good many enquiries. We are pleased to see so many interested in cheese making. If you will allow me a little space in your valuable paper I shall be pleased to give some points of interest to many of the readers of the Planter.

Cheese making in this section is proving to be profitable, as we are blessed with good running water and Bermuda grass and a splendid home market.

Cheese can be made at any time of the year. Here we make an average of 12 pounds of cheese to every 400 pounds of milk, or about one pound of cheese to every gallon of milk, selling at fifteen to twenty cents per pound. A safe way to compare cheese making with butter making, milk that will make one pound of butter will make two pounds of cheese. When one has learned to make cheese it is done at less cost and with less work than butter making. The cheese outfit we are using is a very complete one, and costs from \$14 to \$18 at the factory with printed instructions for its use. However, I find it hard to make cheese by these instructions, as milk does not work the same every day; therefore it is better take instructions from some one. When I was furnishing these outfits I sold them for \$25 to \$40, including instructions and answering questions, as they were sent to me. I would like to write on the profit in cheese making, but my letter is too long. I may come again. Wishing the Planter much success,

Easley, N. C.

C. G. VOIGT.

Live Stock and Dairy.

DORSET SHEEP.

Editor Southern Planter:

Dorset sheep have been known and valued in certain parts of England for many, many years. It is impossible to say how long they have been bred as a distinct race of sheep, but their numbers would indicate that they have been favorably known for many years, particularly in the southwestern counties of England. That they are an old breed is well established by the fact that their characteristics at an early date were quite similar to those which distinguish the breed at the present time. This breed

is now most largely bred in Dorsetshire and adjoining counties. They have not a wide dissemination in England at the present time, but are very popular in the localities mentioned. The original sheep from which the modern Dorset has been developed did not possess many of the admirable characteristics which now distinguish the breed, though it is quite clearly established that for at least 200 years past it has been customary to breed these sheep so as to drop their lambs in the early fall. There is much evidence to show that they were often bred twice a year in the mild climate of England. Prolificacy is thus a characteristic of the breed firmly established.

Like many other breeds little attention was given to their systematic improvement until about 1850 or 1860, and it was not until 1862 that they were first recognized as a distinct breed in the leading English shows. The improvement of this breed was effected, as with many others, probably through careful selection and judicious feeding. No outside crosses were introduced, and thus the Dorset to-day may be said to be a "blue blood," so far as purity of breeding and ancient lineage are concerned. Many distinguished English gentlemen were interested in the improvement of this breed, though probably the name of Richard Seymour is worthy of special mention, as he was among the first apparently to recognize the merit of the Dorsets and systematically undertake their improvement.

There was a period during the first half of the century just closed when the very existence of the Dorset was threatened owing to the influx of the Merino and the great popularity of the Southdown. Crossing them on the Southdown and Leicester also developed about this time and grew to such propor-

tions that it was with difficulty that the breed was preserved. The Dorsets have not a wide distribution in Great Britain, though there are a number of good flocks scattered throughout the British Isles, and they are making progress now and winning honors in many sections where they were not known twenty-five years ago. One of the first importations of this breed into Canada was made in 1885, by E. Stanford, of Markham, Ontario, and they were later introduced into the United States by William Dailey, of Lockport. Several organizations are working in the interest of this breed, and Dorsets are now found in practically every State in the Union. They are probably more numerous in the North Central States, and are a prominent and favored breed in New York, Pennsylvania and Ohio. This is not surprising because these States contain a large urban and industrial population, and the ability of these sheep to drop early lambs has made them peculiarly popular in sections where money is abundant, and hot-house lambs in demand at prices which make them in the nature of a luxury. There are probably now between 12,000 and 13,000 registered Dorsets in the United States, so that the breed is expanding quite rapidly.

The Dorsets are larger than the Southdowns, but are not as compact and probably do not weigh as well; but the size has been increased, and the quality improved very much in the past few years. Mature rams in fair flesh will weigh anywhere from 175 to 225 pounds, and mature ewes from 140 to 175 pounds. These sheep do well in semi-mountainous countries, and they have shown themselves well adapted for use on the rolling prairie land of the central West. In fact, they will do well almost anywhere, where pastures are good, and they receive proper treatment. They do exceptionally well on arable lands if well drained, and as producers of hot-house, or winter, lambs, they stand unrivalled. They mature early; in fact, they are noted for this quality, and the lambs reach a good weight at a very early age. The breed is docile, and does well under confinement, and it is not a difficult matter to finish off the dams when it is desirable to put them on the market. Dorsets do not fill out quite so well as Southdowns, but there is little to choose between the two breeds in this respect. The meat is of the most excellent quality, the fat and lean being well blended, and it is tender, and of excellent flavor. Of course,

it varies somewhat with the conditions under which it has been fed.

The Dorsets will give excellent satisfaction when used for the purpose of grading up the ewes found in the Alleghany mountains, or the Appalachian region. They are particularly valuable where early lambs are desired, though some object to them because of the heavy horns. In prolificacy the breed can probably lay claim to first place, as the dams are great milkers, and, as already noted, they are sometimes bred twice a year with success. The dams also drop a large per cent. of twins, and a breeder of Dorsets would not feel satisfied who did not obtain at least 125 per cent. of lambs from 100 ewes, though in many instances they may go up to 175 lambs per 100 ewes. Dorset sheep will shear about 6 to 8 pounds of unwashed wool, and the lambs from 2 to 3 pounds. The wool is fine and of excellent fiber.

A striking characteristic of this breed is the large curling horns which are common to both sexes. They are also a rather long-bodied race of sheep, though possessed of a good deal of style and symmetry. Their movements are graceful, and they present an attractive appearance. Dorset sheep may be described as rangier than the Southdown, which are the most compact of any of the medium-wooled breeds. They are possessed of greater length of body and limb than the Southdowns, and whereas, the head and legs of the Southdown are a shade of grayish brown, the head and legs of the Dorset are pure white. The wool does not cover the head and legs as completely as is the case of the Southdown, and the Dorset is probably not quite so well developed in the breast, shoulder and crops as the smaller breed.

It is a difficult matter to set forth the characteristics of any one breed, and do justice to them in every particular. Suffice it to say that the Dorset is a well-established breed, possessed of many desirable qualities, and that they can be utilized to advantage in almost any section of the country, but with particular propriety in those sections where it is desirable to produce early lambs. They should be exceptionally well adapted to the mountainous regions of the Appalachian section, where succulent pastures of the leguminous crops may be had practically all the year through. Under these conditions they could often be handled so as to drop lambs twice a year, and there should certainly be no difficulty in getting lambs in the early fall. Owing to the rapid growth of population in the East, due to the marvellous development of our industrial enterprises,

there is a great demand for hot-house lambs, and as it is easily possible to improve the native stocks through the use of Dorset rams, and thus obtain early lambs without the necessity of maintaining pure-bred flocks, this can certainly be developed into a highly remunerative business throughout the eastern sections of the country. Of course, one purchasing Dorsets must expect to study the breed characteristics and feed and manage them with skill and intelligence, for no breed of sheep will do well except when skillfully managed. In fact, as the writer has said before, the breed is often not so important as the man, and hence, while some may not agree with all said with reference to the excellent qualities of the Dorsets, an endeavor has been made to present the unvarnished facts with reference to this particular breed, so far as they are known.

ANDREW M. SOULE,

Dean and Director.

Virginia Experiment Station.

THE IMPROVEMENT OF OUR FLOCKS.

Editor Southern Planter:

Nothing has impressed the writer more in traveling through Virginia than the improvement of the sheep. Ten years ago a uniformly good flock of sheep on the small farms was a rare thing. Now, you find the long-legged, thin-waisted ewes of small bone and scanty fleece only occasionally. We are delighted to see this, for we believe that every man who owns a small farm can have no more profitable capital than a flock of choice ewes and a pure bred ram.

How about this as an example? A poor farmer who owns about sixty acres of thin brushy land, started a few years ago with one fine ewe and twin lambs. He has always used pure-bred rams. He has a flock of sixteen ewes now, that averaged nine pounds of wool, and his lambs weighed ninety pounds. This makes his ewes yield over \$8.00 per head. On a small farm what could pay better than these sixteen ewes?

Men are learning that the best sheep pay best. I attribute the improvement of the flocks in Virginia to the growth of the early lamb industry. It became important to have lambs of good weight early in the spring, and men were not long in observing the fact that those who used pure-bred sires were topping the lamb market. Thus a widespread use of good rams came about. It was not hard to convince a man that a \$20.00 ram was cheaper than a

ram if the former, was of the right type and best breeding. Money invested in the ram was well invested, for the ram was half the flock. Now it is easy to see how the ewe lambs became better than their mothers. The improvement began and must be pushed. No one has brought his flock to the limit, and I want to encourage this fascinating and good work in Virginia. I will say positively that no man can call his year in sheep handling a success unless he has made his flock better.

There are two very simple ways of improving a flock. The first is by breeding, using always the best ram available and suitable to the needs of your flock. If your ewes are too small use a ram of good size. If they are leggy, get a ram of strong bone and short legs. If the fleeces are thin or coarse, use a ram of dense fleece, well woolled on legs and face. It is interesting to see how soon the results of this method will show. Years ago when I was a novice at Dorset breeding, I got some ewes that sheared about three pounds of wool. Now it would be hard to find ewes in the Edgewood flock that shear less than six pounds, and many of them shear nine pounds. This resulted directly from the use of one ram. It did me good to see the beautiful fleeces of the ewe lambs from this ram. This is just an illustration to show that the thing desired can be had. Sheep respond more quickly to careful breeding than any other form of live-stock. I won't discuss now the value of cross-breeding. In some other paper I would like to talk over this interesting question with you.

The second way of improving the flock is by selecting or culling. I prefer to say it is the selection of the proper type of ewe lambs gotten from the ram you have chosen. Here is where good judgment comes in. You can afford to study your lambs for days. Keep your type in mind. You will feel inclined to keep the fat, plump lambs. These lambs belong to good ewes, and all other things being right, they should be selected, as they will likely inherit the milking qualities of their mothers. It is important to select lambs that will make a uniform flock, so after picking out your lambs, turn them out together and turn back any that are not typical. This is the most interesting part of the year's work, and if done well, it counts.

If we would all choose better rams, and then take advantage of them, by selecting the best of their female offspring, our flocks could be made fifty per cent. better. In this day of high prices, when everybody wants sheep, there will be a tendency to stock

up with any old sisters that can be bought. Remember, it will pay to buy a good ram, and start building up a respectable flock. It pays.

H. B. ARBUCKLE.

THE METHOD OF ESTIMATING THE VALUE OF A COW.

In undertaking to place an estimate on the value of a cow the exact amount of milk and butter fat produced should be determined.

Most people when estimating the value of a cow will be largely influenced by the statements made by the owner, of the number of gallons of milk she will produce. This information is usually very misleading, as most persons do not take into consideration the foam in the milk, and again the party wishing to sell a cow will sometimes exaggerate as to her production as well.

The milk from a cow as usually measured should not be given any consideration but to know the exact amount of milk a cow gives it should be weighed with an accurate scale; foam adds nothing to the weight of milk. When the milk from a cow is weighed morning and evening then her dairy production can be estimated, but it is better to know the weight of milk produced for a number of consecutive milkings, and to take an average of these for determining her daily production.

After determining the amount of milk produced per day in pounds and ounces, then one should know the average butter fat contained therein; this can be determined by taking a sample from each milking and from about five consecutive milkings, putting these samples together and determining the per cent. of butter fat in this composite sample; this will be an average per cent. for the time during which the samples were taken. From the average daily production of milk and the average per cent. of fat the average amount of fat produced daily can be ascertained. As six pounds of butter fat thus determined will make about seven pounds of butter, the value of the milk for butter making purposes can be determined. As butter fat is the foundation of cream, the value of the milk put into cream can be estimated. While this method does not give any idea of the amount of milk and butter fat a cow will produce during her milking period, it does show how much she is producing in butter and cream for the time being.

No dairyman should be without this record of each one of his cows at any time. It will enable him to

know when a cow is not producing an amount which justifies her keep, and she can then be replaced with a better cow. Where records are kept as has been suggested, at the end of the milking period the amount of milk and the amount of butter fat can be estimated, and her value for that period pretty closely determined.

WM. D. SAUNDERS.

Dairyman.

Experiment Station, Blacksburg, Va.

BERKSHIRES AT GLENBURN FARM, ROANOKE, VA.

Dr. J. D. Kirk, the owner of this farm, has recently added to his stock of Berkshires some fine animals from the best breeders, and has now one of the choicest herds of native bred and imported stock in the country. He has in his herd the get of the following well known English bred boars: Columbia, Faithful Commons, Hightide J. B. Danesfield, Roger, Loyal Hunter, Peel Premier, and others, and also the get of the following well known American bred boars: Combination 9th, Baron Duke 40th, Lord Premier and others. He recently purchased from Mr. Corsa, of White Hall, Ills., Artful Bessie and Sallie Nora, both bred to Masterpiece, sold by Lovejoy & Son to Mr. Corsa for \$2,500, the highest price ever paid for a Berkshire boar. Dr. Kirk also bought at Mr. G. G. Council's sale, Willowdale Belle and Premier Blossom, two daughters of the favorite sire, Lord Premier. These two sows were bred to Premier Longfellow, the grand champion boar at the Exposition of 1904.

In the litters from these four sows Dr. Kirk has some of the finest bred animals to be found in this country. The English bred boars in service at the farm are Loyal Hunter, Hightide, Royal Victor, Hightide Commons and Peel Premier. Any one wanting choice Berkshires cannot go wrong in buying from Dr. Kirk.

FINE SHEEP FOR VIRGINIA.

Mr. Samuel B. Woods, who has just returned after an absence of several months in England, has imported some very fine Dorset sheep, which will be a valuable addition to the registered flock of that bred at Arrowhead Farm. The pen of ewes took first prize at the Royal Counties Show, and afterwards at the Royal Agricultural Society's Show; the ram took the first

prize at the Royal Counties and first prize and Champion at the Royal Agricultural Show, the latter being the greatest agricultural show in the world. These sheep were bred by Mr. James Attrill, of Brightstone, England.

BERKSHIRES IN VIRGINIA.

Thomas S. White, of Lexington, Va., the veteran Berkshire breeder, has recently added to his famous herd Columbus Lee III, No. 93309, a perfectly marked young boar of ideal conformation, with extremely short, meaty, dished head. This young boar in his veins the sensational blood of Lord Premier, carries in his veins the sensational blood of Lord Premier, No. 50001, the "stunner" at the St. Louis Exposition, which has since changed hands up in the thousands. He has also made additions of the Danesfield family, notably Loyal Lee's Madam, by Loyal Lee, of Francisco, a 1,000-pound boar, an inbred Loyal Berks Lady Mason boar, with an outcross to Lady Lee 67th, a daughter of King Lee 7th, and granddaughter of Longfellow, No. -835, and with an outcross through his dam, Firefly's dam, the Queen of Tyrone, the richest combination of American and imported blood. Mr. White seems to keep abreast of the times in the Berkshire business, as he constantly adds to his herd new blood of the most popular and fashionable strains. He gave up a very large mercantile business many years ago in order to give all his time and attention to the pig business. He now enjoys unrestrained life, with better health and more money than as a merchant. So you see it is sometimes worth the consideration of indoor people to turn their attention to outdoor pursuits.

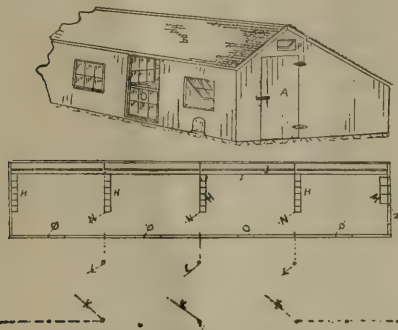
A GOOD CROP OF WINTER OATS.

Mr. Murray Boocock, of Albemarle county, Va., the noted Hereford breeder, tells us that he has just threshed out his crop of winter oats. It was grown on 35 acres of land, and made an average yield of 45 bushels to the acre, weighing 35 1-2 lbs. to the measured bushel. Where winter oats are sown early in the fall, preferably in September, they may almost certainly be relied upon to make a good yield. We have known as high as 60 bushels to the acre to be made.

The Poultry Yard.

POULTRY HOUSE AND YARDS.

Favorite plan and equipment used by J. A. Jocoy, a well known Rhode Island breeder. The upper part of the drawing shows outside appearance. Scale one-quarter inch to the foot. The lower figure shows inside construction and arrangement, with yard connecting.



This design is intended for the general poultry grower, whether on a large or small scale. The runs are square and may be of any size, but in my experience 100x100 feet is large enough. The poultry may be kept on the same ground for many years without any injury or disease, with proper care.

The building is 12x60 feet, with four-foot posts in front. Inside is an earth floor one foot higher than the level of the runs.

The house is divided into four pens, each intended for twenty-five hens, giving seven and one-half square feet per hen.

There is a two-sash window (O) hinged at the sides, each sash separate, so that it can be opened or closed independently. The sash should be hung far enough within the building, so that when wide open it will rest flat against the inside wall of the building and thus be out of the way of the attendant inside. This window opening may be used as a door when cleaning the house. The smaller windows are of one sash each hinged at the top. By adjusting the windows according to the weather conditions the advantages of the scratching shed plan are obtained with only one room. In the cold, stormy days in winter the windows may be closed, and yet there will be light enough in the darkest days so that the hens can see to scratch in a litter, a result which could not be accomplished with the scratching shed plan. The

small opening (P) above the door at the end of the building is 12x18 inches. It is for ventilation, and is fitted with a shutter, the frame of which is 2x7-8 inches thick, covered with cotton cloth. The shutter is hinged at the top. There is one of these at each end of the building, the other end of the building being like the end shown on the upper part of the illustration. Within the building the doors (N) in each partition are three feet wide and six feet high. They are made of seven-eighths stock three inches wide and have boards 2x3 feet at the bottom. The remainder of each floor is of cloth.

Collar joists are fastened to every fourth pair of rafters to prevent from spreading. The sills are of 3x6 inch stuff. The studs or posts, rafters and plates are 2x4-inch material; the other timbers are 2x3-inch stock. The pitch of the roof is about seven inches to the foot, which is steep enough for shingles. If felt roofing is used less pitch will answer. If the roof is to be shingled seven-eighths inch hemlock planking will answer, but if it is to be covered with regular roof felting grooved and tongued stock is better. The cheapest planking is used for the sides. The stock for the sides and end is seven-eighths-inch matched boards, either barn boards or Southern pine stock not over eight inches wide.

The nests (H) are six in each division of the building. Each nest is 14x12x13 inches. The nests are held in place by two common four-inch hooks fastened at each end of the nests and connected with an eye in the board partition above the nests. The nests should be about eight inches above the floor. The roosts (J) are 2x3-inch stock, and are 14 feet, nine inches long and hinge on three brackets five inches above the dropping boards. The dropping boards (I) beneath the roosts are two feet wide and placed twenty inches above the floor and held in place by brackets underneath. They are set loosely on the brackets to be movable. At the end of the building is a grain bin (M) large enough for a week's supply. The cover should be slanting, so that the hens cannot roost on it.

In the yards there is a small gate (L), three feet wide and six feet high in each yard partition, also a large gate (K), six feet wide and six feet high. These two gates opening toward each other make a driveway wide enough for a team, but commonly only the small gate is used in the regular work of the poultry establishment.

The runs are 100x100 feet and give about four hundred square feet per hen. Each pen of hens has its own south front of the house.

The house is painted every three years, using one coat of some cheap oil paint. The cost of a building of this kind well built and complete without the runs would be from \$3 to \$4 per foot in length.

Wakefield, R. I.

J. A. Jocoy.

HOW TO FEED FOR EGGS.

The rules given below were prepared specially by one who has been nearly fifty years in the poultry business, and if they are followed the result will be eggs at the lowest cost and at all seasons.

1. Do not forget that each hen is an individual; that no two hens prefer the same food nor eat the same quantity; in fact, a flock of hens will eat more some days than during others. There is no rule or fixed quantity for feeding as the work must be learned by observation.

2. Keep the hens at work; this is absolutely essential to success. When the hens run after you for food at all hours of the day it denotes that they are fed too much and are too lazy to work at scratching.

3. Never feed three times a day. Feed morning and night, the morning meal to be rather too little than too much. At night give a full meal.

4. After the morning meal, and at noon, if preferred, give one gill of millet seed; scattered far and wide or in litter to make them scratch and search for the small seeds, to which both fowls and chicks are very partial.

5. For sixteen hens, in the morning give one pound of cut bone with no other food, and a quantity of corn or wheat at night for the first day, say Monday. The next day give one pound of cut clover, scalded, in the morning, adding a gill of linseed meal and a gill of bran; at night give half a pound of cut bone and a pint of wheat or corn. Always scatter the grain. The third day give half a pound of cut bone and a pint of millet seed, scattered, in the morning; at night mess of cut carrots, turnips or beets, half a peck, sprinkled with half a pint of bran. The fourth day return to Monday's ration.

6. The proportions given above may be varied to advantage sometimes. For instance, the bone may be reduced to one-half and cut clover or roots substituted. Wheat may be allowed one night and corn the next, while to change to buckwheat, barley or oats in place of wheat or corn will always be desirable.

7. In summer, for hens on a range, half a pound

of cut bone to sixteen hens at night is all the food they require, as they usually come up with full crops.

8. Large hens, like Brahmas, eat more than small Leghorns, but the main point is not to overfeed.

9. Weigh one or two selected hens every week. If they are increasing in weight reduce the grain.

10. When feeding cut bone use the lean meat adhering thereto, but remove the fat whenever possible.

11. Cut clover and cut roots will always be found excellent substitutes for grain; and bone, clover and roots are the cheapest and best foods that can be used.

A CORRECTION.

In our last issue by an unfortunate oversight on the part of the "make-up" man, part of a paragraph out of the article on "Denaturised Alcohol" was taken out of that article and inserted in the middle of the article following it on "The Tax on Vetch Seed." In this way the sense of both articles was destroyed. The lines at the bottom of the first column on page 568, from the line beginning with the word "increased," 21 lines from the bottom of the column down to the line commencing with the word "mass," two lines from the bottom of the column, should have come at the top of the first column on the page, and the article would then have read "When it becomes fully developed we look to see the demand for alcohol spirit enormously increased. The farmer in Germany runs his engine with alcohol spirit, warms his house with it, and gets from it a better light than from kerosene, and one much safer to use. For all these purposes it will soon come to be used here. Already 20,000,000 bushels of corn are used annually by the distilleries for making spirit to drink. This will shortly become a mere flea-bite compared with the quantity which will be used for making denaturized alcohol, and no doubt the Irish potato will here also be largely used for this purpose. Even diseased Irish potatoes will make good denaturized alcohol, and thus find a use for that which is at present a complete loss to the producers. We hail the passage of this law as one from which farmers are going to derive great benefits, and find greatly increased markets for their products. It, of course, will take a little time for the necessary manufacturing plants to be erected and equipped for work, but this will no doubt soon be accomplished. The Standard Oil Company will have to cut down its price or get out of business.

The Horse.

NOTES.

The prize list of the Richmond Horse Show, to be held during the week of October 8th-13th, is out, and shows that the snug sum of \$10,000 or more will be offered as prize money in the fifty-five classes listed. The outlook for this, the sixth annual show, is highly encouraging, and well it should be, as men of influence and prominence are at the helm.

Seeing that the Richmond horse show is allied with those at New York and Chicago, as might be expected, the management of those big affairs are interested in the former and will render material aid. The officers are: John T. Anderson, president; John Kerr Branch, vice-president; James T. Hyde, of New York, secretary; W. O. Warthen, assistant secretary and treasurer. Board of Directors—John T. Anderson, Harry C. Beattie, John Kerr Branch, Richard F. Carman, of New York; Henry Fairfax, Aldie, Va.; Alexander Hamilton, Petersburg, Va.; James T. Hyde, New York; Sidney C. Love, Chicago; L. E. Johnston, Roanoke, Va.; Legh R. Page, John D. Potts, Cincinnati, Ohio; John Spratley, New York, and Henry C. Stuart.

Honorary Vice-Presidents are—Maj. Otway S. Allen, J. R. J. Anderson, Thomas Atkinson, Stanhope Bolling, James N. Boyd, Carter W. Branch, John Stewart Bryan, Henry L. Cabell, Thomas N. Carter, A. H. Christian, Jr., Frank W. Christian, S. D. Crenshaw, C. E. Doyle, David Dunlop, W. S. Forbes, C. D. Langhorne, Col. Barton H. Grundy, E. O. Myer, S. T. Morgan, L. T. Myers, Maj. James D. Patton, Allen Potts, R. G. Rennolds, F. W. Scott, G. W. Stevens, S. W. Travers, Henry Lee Valentine, Dr. J. A. White, Judge T. Ashby Wickham, R. Lancaster Williams, T. C. Williams, Jr., and William H. White.

* * *

The stable of trotters owned by M. H. White, the banker and cotton planter, of Hertford, N. C., has done well this season, with Silas Smith as trainer and driver. With a string of four horses, made up of Conroy, 2:14 1-4; Col. Patrick, 2:15 1-4; Estrella, 2:19 1-4, and the unnamed black gelding, 5, by Adbell, dam Reply, Princeton, the stable was shipped from Hertford to Norfolk, Va., in May, and taking part in the spring meeting at the latter place, won several straight races, and a good showing was made at Baltimore, while the winning habit has been kept up at different meetings in New York and Pennsyl-

vania. The strongest hopes, however, of Mr. White are centered in the Adbell gelding that was purchased as a yearling at Lexington, Ky., for less than five hundred and for whom an offer of four thousand was refused from Boston parties at Norfolk. Smith worked this gelding, who is rather growthy and on the big order, a mile in 2:18 3-4 over the home track just before shipping away, of which the latter half was negotiated in 1:08 1-4 and the final quarter trotted in 33 seconds. The youngster is entered in stake events and may be started at Readville.

* * *

Sidney Prince, 2:21 1-4, who rules as premier at Floyd Brothers' breeding establishment, Bridgetown, Va., is now credited with Princine, 2:15 1-4; Zack, 2:18 1-4; Little Ned, 2:29 1-4, all whom trotted to their records this season, the two last named being new performers, while there are others to follow. Prince has won five straight races and Zack nearly as many, and both can lower their records quite handily if called upon for the effort. The remarkable good showing of his get has made Sidney Prince much sought after by breeders on the Eastern Shore of Virginia, likewise of other sections. Rod Oliver, Moko, Jr., and Red Dillon are the stud companions of Sidney Prince, and while they are young horses, their get show promise and some good mares are being bred to them. All told, the Messrs Floyd say that some 300 or more mares will be bred to their stallions this year—certainly an evidence of prosperity on the part of breeders and of the popularity of the Floyd farm stallions.

* * *

The Broncho, \$2:03 1-4, holder of the race record, for pacing races, who was recently sold for \$10,000, is by Stormcliffe, 2:13 1-4, the son of Wickliffe, by George Wilkes. The Alcander mare Dariel holds a time record of 2:00 1-2, but when specially prepared for the effort it is thought that the Broncho can beat 2:00, as evidenced by the speed she has shown in races. Stormcliffe, sire of The Broncho, is a full brother to the trotting mare Lucena, 2:22 1-4, and the latter was owned for several years by W. Bailey Saunders, of this city, who drove her on the road and then raced her, as will be recalled by numbers who saw the good-looking daughter of Wickliffe trained and driven by W. L. Bass on Maryland, Virginia and North Carolina tracks.

Col. Robert Hough, of Baltimore, has been appointed starting judge and will officiate in the stand at the fair and races of the Virginia State Fair Association, October 9th-13th, at Richmond, and will also serve in a like capacity at the North Carolina State Fair, Raleigh, October 15th-20th. Col. Hough is a man of integrity and wide experience, and his decisions are respected. He was for years secretary of the famous old Pimlico track, Baltimore, and more recently has been prominently identified with the Maryland and Virginia circuit of fairs and races as secretary.

* * *

Among the good mares that have been bred this season to Lord Chancellor, son of Dare Devil, 2:09, are Fern, 2:18 3-4, by Petroskey; Sweet Lynne, trial, 2:21 1-4, by Gen. Johnson, 2:12 1-4; Margaret Noble, a speedy daughter of Norfolk, 3:670; Lucania, by Woodburn Hambletonian; an unnamed daughter of Whitby, 2:18 1-4, from Miss Thompson, 2:20 1-2, by Toodles, Jr.; Carnation, by Climate, and four daughters of Willis, the dead son of Jay Bird and Wild May, by Lumps, 2:21 1-4.

* * *

Without exercise it is impossible for the muscle of the young horses to develop, hence the necessity for a good-sized field for them to run in. If you would have horses with plenty of endurance, give the colts a chance to develop their muscles.

BROAD ROCK.

SUMMERING HUNTERS.

Editor Southern Planter: •

The summing of hunters has been from time to time the theme of writers on matters connected with the horse, and there are now even at this day, as many varied opinions as to what should be, or should not be done, that there is still room for discussion and criticism of the many systems in vogue. At starting I may say that I have no wish to be didactic, or to pose as an authority whose precepts cannot be disputed, but rather to write from experience alone, and begin by suggesting that, given two sound horses of the same age, who have done an equal amount of hunting during the season, the same treatment may allow of one retaining most of his condition, and coming out fresh and improved for the opening of the season, while the other may be all to pieces, and in need of three months coddling before he is able to

resume work. The fact is that horses vary enormously in the matter of constitution; some seem to be able to stand any amount of hard work, and never to go wrong, unless they meet with an accident, and others are constantly out of sort, often losing flesh and condition when there is apparently no reason for their doing so. One thing is quite certain, however, and that is, that at the end of each season, every hunting man of ordinary intelligence should know which of his horses are worth keeping, and which should be disposed of as soon as possible.

Broadly speaking, there are three ways of summering the hunter, viz.: running him out, keeping him in a yard, where he can exercise himself to a certain extent, and keeping him in work, and all my experience goes to show that work—provided that it can be given judiciously—is the best thing for all horses which finish the season sound, and that are not more than ten years old. Running out, I believe in for veterans who are good performers and “hunting sound,” but a little groggy. Such warriors are as a rule benefitted by a term of natural life out of doors. The spring grass about their legs, the cool soil to their feet, and the change of diet, are all beneficial and if a suitable pasture is forthcoming veterans as a rule will benefit enormously by being summered in the open. Grain they must have regularly, however, and their feet should not be neglected. The matter of suitable pasture requires very careful consideration, and whilst it is generally an easy matter to find what is required, there are many districts which are quite unsuitable, owing to the fact that the sun is more in evidence, that it shines with greater power, and that in a hot summer, it so quickly dries the pastures up, the sun power drawing all the succulence out of the young grasses, and causing the ground to become so hard, that horses get tender feet, or possibly some worse affliction. In very hot weather, and where there is not a plentiful supply of shade, it is as well to turn the horses out for the night and keep them in during the day. They miss the sun heat and the flies, and they get the advantage of the dew. In turning horses out, it should never be forgotten that all the benefit which accrues from eating young grass and living in the open air may be lost if the food supply is of poor quality and the ground very hard. Horses running out suffer greatly from flies at times, and, a docked horse with a very short tail is at an immense disadvantage when the flies are troublesome, while even a horse with a hogged mane suffers more than a horse whose mane has not been interfered with, because the natural mane is in some

degree a protection. Young horses do not benefit by being run out: that at least is my experience.

In the first place, they are as a rule much more likely to get into trouble than the older, soberer ones. Some of them at times eat of the new food inordinately, and get colic in consequence: others, again are apt to eat the bark of young trees, and all youngsters are more likely to injure themselves than are the older horses.

Then, too, supposing a young horse, who has done one or at the most two seasons' hunting is turned out, he loses most of his condition far more quickly than the older horse, who carries the condition of years: and lastly there is the chance that by too much gorging on young grasses he may become thick winded. Some authorities go so far as to say that a good deal of roaring can be distinctly traced to summering hunters in the open, but of this I have no certain knowledge, and though I have known a horse turned out sound in May, to be brought in a roarer in July. I cannot say of my own knowledge that the roaring was absolutely caused by three months at grass. There should always be a good water supply where horses are run, and on no account should they be allowed to go near a field which has been cropped for hay.

As for the farmyard business, it is a good enough plan if not carried too far. Six, or at the most, eight weeks of this sort of treatment is quite enough, and after that the horses should be taken up again, and exercised daily, gradually increasing both time and distance as the summer wears on. But this plan of summering hunters makes them cost almost as much as they do during the regular hunting season. Their grain is, of course, curtailed in some degree, but when they are taken up they require as much grooming and exercising as they did on their hunting days in the winter, and thus the services of as many men are required. To keep horses in work is the most difficult thing of all, especially since the advent of the motor car. A man with a big shed can hardly find work for more than one hack during the summer, and thus it remains that if hunters are to be regularly worked they must be driven.

All my experience is in this direction, and it so happens that I have ridden many good horses during the winter which had spent some portion of their summer in a coach. Also I have known three Masters of Hounds who regularly drove a team of hunters, and I can only say that these horses did more hunting in the following winter than their stable com-

panions, which had not been driven, and that as a rule they lasted on, and remained sound far longer than the average hunter does. I once knew a man who hunted four or five days a week during the winter, and who invariably drove his hunters for some four months after the season was over. He was a heavyweight and a bruising rider, and in all my experience I never knew any one to get so much work out of his horses, or who made fewer changes in the stable. Though he was possessed of splendid pasturage, one never saw anything but breeding stock in his pastures, and unless it was lame, no hunter of his was ever turned out. He told me that when he was a young man he once lost a valuable horse, which had eaten too freely of the bark of a tree, when running out, and from that time onwards, he kept his hunters in condition by driving them. Only the last time I was in England, I rode a horse that had been driven most of the summer, and in the last run which took place, my mount was the only horse left which was not a "second" horse. Moreover, I had a twenty-mile ride back home in the dark, and the old horse stepped along with his ears pricked, in a fashion that I have never seen in an ordinary hunter after so long a day so early in the season. This, of course, was only a matter of condition, but here was a horse that had never been let down for three or four years, and who was, therefore, as hard as nails all over, and far more capable of getting through a hard day than are nineteen horses out of twenty.

W. R. GILBERT.

Alberta, Can.

IMPORTED GUERNSEYS FOR VIRGINIA.

Mr. Westmoreland Davis, of Morven Park, Leesburg, Va., has now in the Government quarantine yards fifty-one head of fine Guernseys, which he has just imported. When these animals arrive at the farm Mr. Davis' herd will number over one hundred head of the finest Guernseys in this country.

From the herd Mr. Davis ships cream to New York city every day, securing an exceptional price for his product on account of its high quality and the perfect sanitary conditions under which it is produced. He finds the Guernseys exceptionally suited for this high-class trade, as they are almost universally constitutionally sound, they produce a high quality of deep colored cream and maintain the quantity of their production over a long milking period. These considerations have led him to increase his herd by this recent importation.

Miscellaneous.

THE STATE FARMERS' INSTITUTE AT ROANOKE.

Although we publish in this issue an article on the late State Farmers' Institute, summarizing the work done, and the impression gathered as to the effect on those attending, from the pen of the Secretary, and which most faithfully conveys a true picture of this gathering, yet we cannot refrain from just adding a word giving our own estimate of the gathering. We have attended many meetings of farmers throughout the State during the past twenty years, but this one, in our opinion, exceeded in interest and importance all that we ever attended. To stand as we did on the platform and look into the faces of the more than 1,000 men who were in attendance, and see the earnestness with which they listened to the various speakers, and the lively interest they took in debating the questions under consideration was inspiring beyond measure. It gave one renewed hope for the agricultural interests of the State, and made one feel assured that with such a body of men working in the cause of advanced agriculture, the time was not distant when Virginia farmers would come into their own again. The whole meeting was a most pronounced success, every session (three per day for two days) was fully attended, and the interest in the various subjects on the programme never flagged. Speakers were plied with questions pertinent to the subject under consideration, and note-books and pencils were in constant use recording memoranda for future reference. On the last day of the session 1,053 of those who had been in attendance went to the Agricultural College and Experiment Station at Blacksburg, and there exhibited the same lively interest in all that was to be seen in the way of scientific appliances and facilities for teaching the young men of the State to become good farmers, and the crops and herds of live-stock kept there for carrying on the work in practical demonstration of the teaching. We doubt not that the inspiration there gathered sent hundreds home determined to make a new and better start in their life's work, and decided many to make the effort to give their boys the opportunity of having scientific training at the College as the best means of fitting them to become successful farmers. All were loud in their praise of the work being done at the College and Station by Dr McBryde, Professor Soule, and the other members of the faculty, and realized more fully than ever before

that the work and Institute deserved the most liberal support of the people of the State. Professor Soule has made a warm place for himself in the hearts of all the farmers by the energy with which he has thrown himself into his work at the Station, and by the great results which he is accomplishing, which bids fair in a short time to make the Station a pattern for other States to follow. He is all the time after practical results, and these will always commend him to so practical a set of men as the farmers. Whilst they do not underestimate the value of purely scientific work, they want to see results as the outcome, and these Professor Soule aims always to give them. They freely admitted the debt of gratitude they owed to Professor Soule in the organization of the Institute, and the fine work it was doing. In all this we most heartily concur. He has originated a new era in the agricultural progress of the State, and the outcome cannot fail to result in profit to the farmers.

FOOD FOR THOUGHT FOR SOUTHERN TOBACCO GROWERS.

We are in receipt of a letter from one of the largest buyers and exporters of tobacco in this city, enclosing translation of a letter he had received from one of his customers abroad, to whom he had offered a lot of dark short leaf at 7 1-2 cents per pound. The party replied as follows:

"I have received the samples of your tobacco, and must say that the price of 7 1-2 cents, which you put on the same is enormously high. In consequence of the scarcity and the high prices of Virginia tobacco, our manufacturers have changed their brands, and for some time have been using eastern tobacco as a substitute for Virginia. There is no demand any more for Virginia or burley tobacco, as prices for the last two years have been so high that the manufacturers are using instead of these, Greek and China tobacco; and instead of bright, light brown grades are used. It is the same with Clarksville tobaccos. For spinning purposes the manufacturers are using native tobacco, and it seems that the chewers do not complain. The seed leaf tobaccos being so high are replaced by Java, Sumatra and Manilla. If this situation is not changed, but very little tobacco from the United States will be used here. It is a good thing for the home planters,

although the prices for home grown tobaccos are slightly cheaper than they were a year ago."

Commenting on this letter our correspondent says:

"Europe is not absolutely dependent upon getting its tobacco from here, and by a period of high prices, which the trade in Europe cannot pay, the manufacturer there is compelled to change his brands, and to make the public smoke or chew something else. Everybody connected with the tobacco trade knows that the manufacturer is very slow to change the quality of his product, and while the European manufacturer has been slow to do it, he will be equally slow to change back again to tobacco from the United States."

In connection with this question of tobacco values, it may be pointed out that the Canadians seem to be going into the production of tobacco with considerable energy. In this issue will be found a description of one of the largest tobacco farms in that country, which is a revelation as to what can be done with the crop when capital and scientific methods are combined in the venture. We take the following from a United States consular circular report on tobacco growing in Canada, from the London Times, England:

"The farmers of Kent and Essex counties are this year planting more tobacco than ever before. This is due to several causes. The crop last year was very profitable. Many farmers who, last year, raised sugar beets for the sugar factory at Marine City, Michigan, but who lost that market with the failure of the sugar company, are planting tobacco instead of beets. The government's announcement of the establishment of an experimental tobacco farm in Essex has also stimulated interest. The growers themselves have been carrying on experimental operations for years, and believe themselves able to grow better tobacco this year than ever before. Statistics just issued give the value of the tobacco crop of Kent and Essex counties for 1905 at £20 16s (\$104.00) per acre, or a total of £137,280 (\$688,400) for a total production of 8,580,000 lbs. from 6,600 acres. The average yield was 1,300 lbs. an acre, and the average price was about 4d (8 cents) per lb. The native leaf has obtained a ready sale to Canadian manufacturers. As an example of how profitable tobacco growing may be made, the crop of John Little, of Harrow, Ontario, is instanced. Mr. Little, on scant six acres, raised last season, 11,842 lbs. of tobacco, which was purchased by the Empire Tobacco Company at 4 1-4d. (8 1-8 cents) per lb., in all £201 4s

(\$1,006.00); or over £33 8s. (\$167.00 (an acre.)"

When the average yield of over 1,300 lbs. per acre over an acreage of 6,600 acres is compared with an average production of 700 lbs. to the acre, it will be seen that our Canadian neighbors are likely to be lively competitors in the market. They evidently do not regard the production of the crop at present prices as a losing business.

SOME FARM MISTAKES, ECHOES AND OBSERVATIONS.

Editor Southern Planter:

It is interesting and astonishing in traveling through a farming district to observe the radical difference between the methods in farm operations, appearance of the different farm homes and surroundings. One presents an air of thrift and contentment, another the opposite.

The appearance and general surroundings of a farm home pretty clearly tells whether the man is a successful farmer or not. Whether he is running the farm or the farm running him.

In a good agricultural district and a section of pleasant homes we find always a few shiftless and careless, unconcerned farmers.

Here are a few lamentable mistakes and bad conditions we find to exist on otherwise well regulated farms, that ought not to be.

There is a lack of precaution and in many instances, of good sanitary conditions about the home. The hog lot, the poultry yard and the duck pens are often placed in such close proximity to the farm house as to actually become very offensive and detrimental to the health of the farmer and his family.

The back yard often is made a dumping ground for all manner of rubbish and refuse matter from the kitchen.

No adequate walks, which cost so little to provide, and are such a convenience in getting to and from the barn and outbuilding in wet muddy weather, are provided about some homes and the good wife and rest of the family must tread around in mud and slush every time they leave the house in a rainy season.

On one farm I recently passed, the owner was a jolly good fellow, the grain binder, the mowing machine, hay rake, ploughs &c., were all standing out in the weather and in the fields where used last and presented a rather deteriorated and dilapidated looking condition. The grain binder after facing the weather for one year without any protection, must

have worked woefully badly when called into use, to say nothing of the big repair bills.

The worst feature on this farm (and the farmer had a bank account), was the poor condition of the fences, dragging, broken down gates and bars, some of which were necessarily used a half dozen or more times a day and the stock (comparatively speaking) permitted to run at pleasure, necessitating much extra work in keeping them in their desired bounds and under control.

The owner said he was so busy that he had no time to fix or spruce up and I am inclined to believe he was about right in his statement.

Another point I notice about a few farmers is the lack of system, promptness and decision in carrying on their farm operations. Some work their land too wet and destroy the fertility, others do not impart to their boys, when sending them to do a piece of work, the necessary information as to how it should be done, and why. This recalls a little incident in my home section a few years ago.

Two boys were sent out to break up a piece of ground for a crop. The plough was not properly adjusted or set, and it was indeed difficult to tell what the aim of the boys was, open up a tile drain or turn two furrows at once. The plough required both a ploughman and a riding driver to keep things going. It was clearly a big undertaking, but after all a poor job.

It is rightly said, "nothing beats success but a failure," and that successful farming cannot result from slovenly methods, lack of care and system.

The unmistakable marks of successful farming are, well kept and cultivated lands, neat, clean and nicely kept homes, provided with necessary and adequate walks, the paint and whitewash brush applied freely and frequently, ample and substantial buildings for stock and machinery &c., and after the season's work is finished the machinery, tools, &c., nicely cleaned and housed, ready for use the next season at a moment's notice.

The season's work is carried on with promptness, judgment and system and no radical extremes or negligence permitted or resorted to, except in cases of necessity. The gates and fences kept in constant, good repair and above all sanitation, cleanliness and the comforts of the home well guarded. Then it is that farm life has the true joy and ring about it.

To become a success at farming and banish failures, we must get out of the old ruts and form new methods by reading, investigating and acting, that is, learn to do the right thing at the right time and to do it properly.

In this connection it is well to consider the vast stores of practical farm knowledge to be gained by reading regularly one or more good Agricultural Journals and if possible taking a course at some good Agricultural College.

W. ARTHUR GOOD.

Rockingham County, Va.

TOBACCO GROWING.

When the Virginia Dark Tobacco growers get their land making 2,125 pounds per acre, like Canadians are doing (we have known a Virginia field to make 2,000 pounds to the acre), instead of the present average of about 700 pounds, we will venture the assertion that they will not say that Tobacco cannot be grown profitably at present prices.

MONEY IN DUGKS.

Editor Southern Planter:

A flock of snow-white large Pekin ducks will prove ornamental, profitable and interesting. They attract more attention and admiration than anything pertinent to farm life. At this season of the year they live in the fields and orchards; they are full and happy in wheat stubble, barley and oat fields. No necessity now for feeding the old ones. My wife has hundreds of young ones, hatched by hens. The hens are taken away at once in warm weather, and the little chaps are placed in rat, weasel and skunk proof rooms in the orchard, fed and watered three times a day on shorts and bran, mixed and made moist, just crumbling. This is placed in little flat troughs with a stripnailed through the centre lengthwise of the trough, they can then get their bills in the trough, but cannot get their feet in it. These troughs are also the right thing to water them in, so that the water may be kept clean. Remember, as they get a little older that a change of food is good for any kind of poultry or stock. As soon as they get considerable strength, say at a week or ten days old, they are allowed the run of the grass lots about the house, and have a swimming pool. The latter is not necessary; in fact, many breeders insist that they do better without any bathing water. They are much more easily raised than chickens. They should not be left out in time of rain or storm. Their quarters should be kept dry and clean. Be sure to see that they have good shade in hot weather, else they will die of sun-stroke just as little chicks do. Fasten them up securely at night, so that their enemies cannot reach them. After they are grown they

can stay out over night, except in freezing weather. If anything bothers them they will make such a clatter as to save themselves and your property from harm. My wife will pocket several hundred dollars this season from a flock of 21 to 25 old ones. I furnish the food; she and a little grandson do the rest.

The rural mail man is watched for with eagerness by my wife. She reads all the letters first,

then turns them over to me less checks for poultry. Women are funny creatures. Still a little shy of me, you see, after nearly forty years' test, but perhaps this gives her all the better reason for shyness. The fact is, she always was just a little coy, but don't tell her I said so.

THOS. S. WHITE.

Rockbridge county, Va.



FARMERS ON THE CAMPUS AT BLACKSBURG.

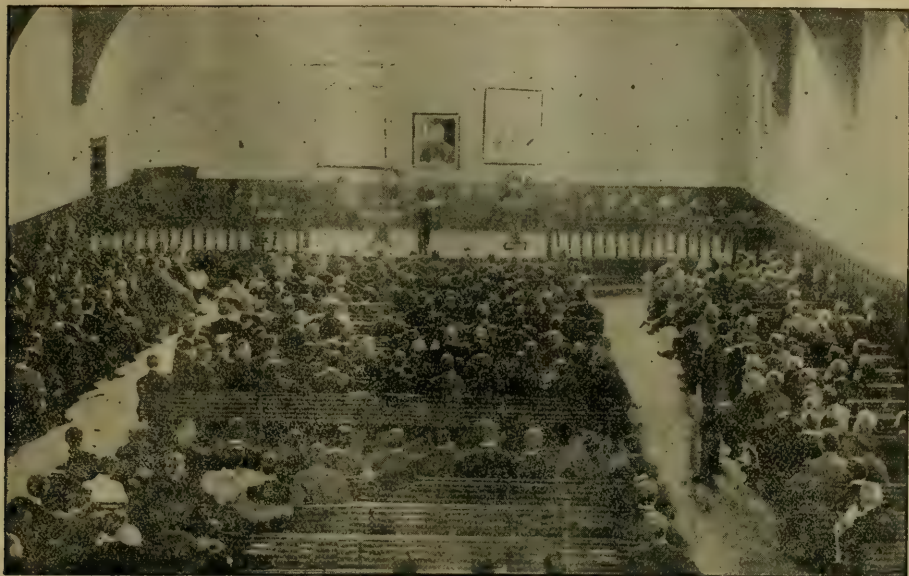
AFTERMATH OF THE STATE FARMERS' INSTITUTE.

"Farmers and more of them." That is what the good people of Roanoke said after the meeting had been in progress some twenty-four hours. "Where do they all come from? I never knew there were so many farmers in the State before." And, indeed, the Magic City, which prides herself on her courtesy and the rapid extension of her boundaries, was taxed to the utmost to take care of the invading host of farmers that visited her on the 10th, 11th and 12th of July. They were to be seen everywhere, but they were most in evidence at the sessions of the Institute, for they all seemed to be imbued with a hungering and thirsting for knowledge that was a delight to witness, for it augurs well for the future of agriculture in Virginia.

The weather for the meeting was almost ideal, and though the Casino, at Mountain Park, is some distance from the city, the ride out on the cars pro-

vided a cool and refreshing change. The Casino itself is admirably adapted for such a gathering. Its sides being open, the air circulates freely, while best of all, it is easy to speak in, and one could hear the addresses without undue effort on the part of either speaker or listener. It was a jolly crowd, and a representative crowd as well, coming as it did from all sections of the State, and every agricultural interest was well represented—from the truckers, peanut and potato growers of the eastern part of the State, to the stock raisers and grazers of the Shenandoah Valley and the Southwest.

The invitation to the ladies was accepted by many, and there was a good sprinkling of the fair sex in attendance. We hope to see more of them another year, for their presence added much to the interest of the meeting, and they seemed to be among the most earnest and attentive of all the listeners. It is safe to say that they carried away a store of knowledge that will be useful on many occasions to the lord and master of the plantation during the coming year.



DR. MCBRYDE ADDRESSING THE FARMERS IN THE COLLEGE CHAPEL.

Did you ask how many there were? There must have been at least 1,200 of them, for 1,052 visited the Agricultural College and Experiment Station, at Blacksburg, on Thursday, and many who attended the first two days' sessions did not go on the excursion. As an evidence of the growing interest in the meeting, the membership doubled, a rough estimate at present indicating that at least 560 joined the Institute. It was not only a jolly crowd, but an exceedingly well behaved one, for there was not one person in the whole assemblage who was disorderly at any time, and it was commonly remarked in Roanoke that a more orderly crowd had never been entertained within her borders. Is that not something that the farmers of Virginia may be justly proud of—when their representatives can get together in large numbers and still conduct themselves in a manner so gentlemanly as to attract the favorable notice of the citizens of Roanoke?

There were big farmers and little farmers, and old and young as well. The number of young men present was quite striking. This is a favorable sign of the times, for it shows that the young farmers of the State realize fully the need of agricultural education, and the need of all the advice and sympathy they can secure in order to make their business more

profitable. They realize that there is much to learn about a business as complicated as theirs, and they are glad and willing to avail themselves of every opportunity to come in contact with men of wide practical experience. Do not think for one moment that the writer does not appreciate the counsel and wisdom of gray hairs, without which little of value could be accomplished, but it is in the hands of the young men nevertheless that the future destiny of agriculture is cradled, and so they are doubly welcome because of their virility, their activity, their intelligent frankness, and their desire to become the best and most intelligent farmers of the nation.

The programme was an excellent one. Every paper was listened to attentively. One that attracted unusual attention was that of Hon. L. E. Johnson, President of the Norfolk & Western R. R., on "Building Up Virginia." He gave an able exposition of conditions as he had found them in the State, of the progress that had been made, and of what could be accomplished in the future. Hon. M. V. Richards, of the Southern Railway, and Hon. J. W. White, of the Seaboard Air Line, were both unfortunately detained from the meeting, but their papers will be published in the proceedings. In fact, it is



THE SPECIAL TRAIN AT CHRISTIANSBURG.

proper to say that practically all the papers of all the speakers have been received, and will constitute a part of the next annual report of the proceedings, which promises to be quite a voluminous book; a book indeed that will be invaluable to Virginia farmers, for it will contain the advice and suggestions of many of the ablest practical and scientific men in the United States, as well as excellent papers by about forty successful Virginia farmers. This volume will provide a handy reference work for any farmer, and no doubt, will be greatly prized by the members. It will be printed and distributed as soon as practicable.

The address of Hon. B. O. Cowan, Assistant Secretary of the American Shorthorn Breeders' Association, was very instructive; while the talk of Cal. Husselman, of Roxbury, was one of the features of the meeting. Mr. Husselman is a thoroughly up-to-date poultryman, and a jolly, whole-souled speaker who carries his audience with him. The subject of "Growing Legumes" received its due share of attention, as did also that of Fruit Growing as a Business." "The Management of Farmyard Manure" was ably discussed by Professor R. J. Davidson, chemist of the Virginia Experiment Station; and it is safe to say that greater attention will be given to this farm asset in the future than has been given to it in the past. "The Improvement of Corn" and "The Practical Value of an Agricultural Education" were topics earnestly considered.

"The Improvement of the Rural Schools" was discussed by Hon. J. D. Eggleston, Superintendent of Public Instruction. This address was peculiarly striking and forcible, and a most able exposition of the school conditions as they exist in Virginia, and the remedies and improvements needed in order to

make them more effective. Mr. Eggleston is a fearless, earnest and convincing speaker, and his address was a feature of the Institute.

The subject of "Investigation in Stock Feeding" was discussed by the writer, who dealt at some length on the great importance of the results now in hand comparing the relative merits of winter feeding and grazing beef cattle. Some striking results have been secured in feeding silage in the place of dry roughness, the details of which will be found in the printed proceedings.

"The Relation of Fertilizers to the Production of Tobacco" was ably handled by Mr. E. H. Mathewson, who is in charge of the co-operative experiments between the Virginia Experiment Station and the U. S. Department of Agriculture, at West Appomattox. He gave the results of the fertilizer trials at that place, showing clearly that high-grade fertilizer for tobacco growing is a profitable investment for the farmer. "The Growing and Handling of Tobacco in Its Various Stages" was discussed by Hon. J. M. Barker, member of the State Board of Agriculture from the Fifth Congressional District. Captain Barker was in his element on this important topic, and his address was closely followed by the large audience.

"The Feeding and Management of Lambs, and What the Country Offers," were topics discussed by Mr. Joseph E. Wing. He also was called on to say something on "Alfalfa." It is needless to say that he carried the audience with him. He is a delightful and unaffected speaker, and every word he utters counts for something. It was a treat to hear Mr. Wing, one indeed that will be long remembered by all who were present. In passing it is proper to remark that some most excellent specimens of alfalfa were placed on exhibition. These samples came from various parts of Virginia, and represent

the second crop, and show quite clearly that under proper conditions this invaluable forage plant can be grown in many sections of the State.

"The Improvement of the Soil" was ably handled by Professor W. F. Massey, editor of the *Practical Farmer*. This topic, because of its vital relation to improved yields received more than unusual attention, and many questions were directed at the professor. His efforts were ably seconded by Professor J. S. Miller, of Emory, and Mr. T. O. Sandy, of Burkeville.

"Dairying as a Business" was handled advantageously by Professor E. H. Webster, of the U. S. Department of Agriculture; Hon. A. R. Scott, member of the State Board of Agriculture, from the Third Congressional District; and Mr. J. W. Gregg, Purcellville. These men covered the field very nicely, and the growing interest in this subject was evidenced by the large number of questions directed at the speakers. Owing to the crowded nature of the programme, one or two subjects could not be reached at their allotted time, but the papers will be published in full in the proceedings.



A HOLSTEIN CALF AT BLACKSBURG.

"Profitable Prices for Farm Crops" was discussed at length by Mr. C. Hayes Taylor, of Indianapolis; C. N. Stacy, of Amelia; and Hon. A. F. Thomas, of Lynchburg.

"The Relation of the Press to Agriculture" was discussed by Mr. J. F. Jackson, editor of the *Southern Planter*, and Mr. Alva Agee, of the *National Stockman and Farmer*.

The Institute worked hard and arduously, commencing at 9 o'clock in the morning, and closing its

session for the day at 10 o'clock at night. The discussions of the subjects on the programme, though not prolonged, were pointed, and indicated clearly the progressive agricultural spirit pervading the farmers at present; they indicated a thirst for knowledge that is most commendable, and a desire to find out the most practical methods of dealing with the many problems of farm life. It is hoped that another year more time can be given to discussion, and with this end in view, a smaller number of topics will be placed on the programme.

The officers elected for the ensuing year are:

Hon. J. Hoge Tyler, East Radford, President.

T. O. Sandy, Burkeville, Vice-President.

Major John T. Cowan, Cowan's Mill, Second Vice-President.

Professor Andrew M. Soule, Blacksburg, Secretary.

Mr. J. M. Williams, Roanoke, Assistant Secretary.

Some changes were made in the Constitution, and the Executive Committee was authorized to appoint a county vice-president for each county in the State. This matter will be taken up at an early date, and an announcement made later relative to this important matter. It is very desirable that an active and aggressive man be appointed in each county, who will push the work of the Institute, and enlist the interest of the farmers everywhere in an institution the educational efforts of which are now clearly recognized, and whose work is bound to benefit Virginia Agriculture at home and abroad.

The Committee on Resolutions made quite a lengthy report, a summary of their recommendations which were unanimously approved by the Institute, is about as follows:

The thanks of the Institute were tendered to Major John T. Cowan, member of the State Board of Agriculture, from the Sixth Congressional District, for his generous aid to the Institute, in giving \$300 of the appropriation to his district to defray part of the general expenses of the Institute. The labors of the Superintendent of Public Instruction were warmly approved, and the opinion expressed that teaching agriculture in the public schools was a move in the right direction.

Resolutions were passed favoring the encouragement of immigration, and the building of public roads. The work of the College of Agriculture and Experiment Station, at Blacksburg, was strongly commended, particular stress being laid on the value of the field and feeding experiments in progress at that institution. The work of the officers of the In-

stitute was strongly commended. Co-operation among the farmers was advocated, and a special vote of thanks extended to the railroads, and especially to President Johnson, of the Norfolk and Western, and Mr. Payne, of the Virginia Anthracite Coal and Coke Company, for their courtesy in providing a special train to carry the visitors to Blacksburg. The establishment of sub-stations under the direction of the Central Experiment Station was approved. Thanks were extended to the City of Roanoke and its Board of Trade for courtesies received. A special vote of thanks was tendered to President McBryde and the Board of Visitors of the Virginia Polytechnic Institute, for the entertainment provided during the visit to Blacksburg. The State Fair and the work of other fair associations of Virginia was warmly endorsed. A resolution was passed condemning the action of the International Harvester Co. in not allowing supplies to be kept at local points. The warmest confidence was expressed in the efforts of the Experiment Station and those directly in charge of its work, and they were pledged the support of the Institute in their efforts to promote the welfare of the farmers of the State.

After adjournment on Wednesday evening, special tickets were given out for the excursion to Blacksburg. Thursday, July 12th, was an ideal day, and ten coaches of happy farmers sped rapidly on their way to Christiansburg, through the beautiful valley of the Roanoke river. They reached Blacksburg early in the morning, and were taken to the chapel, where a most excellent and able address was made by President McMryde, on behalf of the College and the Board of Visitors. Dr. McBryde reviewed the work of the institution from its beginning, and pointed out the arduous difficulties overcome by the College, and the tremendous labor expended in bringing it to its present high state of efficiency. He commended the work of all the departments, but laid especial emphasis on the work of the College of Agriculture and Experiment Station.

The visiting crowd in charge of the professors, at the head of the various departments, were next taken through Science Hall, and the shops, after which a delightful luncheon was served in the College dining-hall, by Mr. Shultz, the College steward. The visitors were particularly interested in the cheese made by boys from Virginia farms, and the milk from the College barns, though it is needless to say that the watermelons and muskmelons suffered severely in the onslaught of such an army of hungry people.

After luncheon the visitors were taken on a tour of

inspection of the farm and barns.. Those especially interested in horticulture were taken over that section of the station grounds. The visitors were particularly interested in the sixty-six-acre experimental field, with its especially designed barn and neatly kept plats and roadways. Here a great variety of experiments are in progress to determine the best crops to grow in Virginia, and to study methods for the permanent improvement of corn and other important cereals. More than 1,500 direct questions are being asked of the soil. When this work has been in progress for several years it will answer many of the vexing problems relating to our agriculture. The visitors, one and all complimented this part of the work most heartily.

The visitors were delighted with the herds and flocks and the College barns, generally speaking. They were glad to see the new Agricultural Hall making such rapid progress, and many were the interested spectators who lingered in the dairy building to see the various processes through which milk is put in the manufacturing of butter and cheese. The milking machine attracted a great deal of attention. In fact, the crowd was so great about it that it was difficult to either operate the machine or to see how it worked. The beef cattle were greatly admired, and altogether it was a happy, if a tired and dusty crowd, that reached the Blacksburg depot at 4 o'clock in the afternoon, ready for the return journey to Roanoke. Every one went away feeling that the day had been well and profitably spent, that Virginia had much to be proud of in the Virginia Polytechnic Institute, that there was much to be learned about agriculture, and that there was a source of information available to our farmers of which they were probably not fully cognizant before. That they will avail themselves of this opportunity goes without saying.

It is needless to say that the Institute was a success from every point of view; that it gave a great incentive to agricultural education; that it furthered the desire for organization and co-operation on the part of farmers, and that it speaks volumes for the future welfare of agriculture in our State, which constitutes, as we all fully realize, the fundamental basis of our progress and our wealth.

ANDREW M. SOULE, Secretary,

Blacksburg, Va.

RESOLUTIONS.

Resolved, That the thanks of this Association be tendered to Major John T. Cowan, member of the State Board of Agriculture, from the Sixth Con-

gressional District, for his generous aid to the Institute in giving \$300 of the appropriation for his district to defray a part of the general expenses of the meeting. We believe that this was a wise and judicious step, and that in making this appropriation he has done as much for the individual farmers residing in his district, as he could have accomplished in any other way.

Resolved, That we approve of the labors of the Superintendent of Public Instruction, who has shown himself to be an indefatigable worker in the interest in our public schools. We feel that every effort should be made to foster the interest of the public schools, as they provide the only education available to a large per cent. of our population, and it is now clearly recognized that the average intelligence of our citizens will determine the degree of progress achieved by the State. We believe that the improvement of the public schools can be so conducted as to materially benefit the agriculture of our State. We also favor high schools, and commend the work being done to establish a number of them in the several counties of the State. We favor liberal appropriations for the cause of education.

Resolved, That, in our opinion, the agitation for the teaching of agriculture in the public schools of Virginia is along right and rational lines, and meets with our approval.

Resolved, That this meeting begs heartily to thank President Johnson, Mr. LeBaume, and other officials of the Norfolk and Western, and the Virginia Anthracite Coal & Coke Co. for their repeated acts of kindness and courtesy extended to the Farmers' Institute, and especially in providing the train facilities enabling the members to visit the Agricultural College and Experiment Station, and to all the railroads in the State for their courtesy in providing a low rate for those desiring to attend the meeting.

Resolved. That we commend the work of the Virginia Agricultural Experiment Station. We are particularly gratified to see the efforts being made to develop a line of field experiments that will enable our farmers to ascertain the best varieties of grain, grass and other crops to grow; also the very considerable work being done along horticultural lines. We are also gratified at the efforts being made to conduct feeding experiments with beef and dairy cattle and swine on a large scale. We feel that animal husbandry is so closely related to the successful maintenance of soil fertility that these features of the station's work should be emphasized particularly.

Resolved, That we especially commend the Director of the Experiment Station, Professor Andrew M. Soule, and his staff, whose work has already made its mark upon the minds of the farmers of the State and revealed to them possibilities which were not heretofore thought of; and this Institute pledges itself to give its most hearty support to Prof. Soule and his staff in their efforts to advance the welfare of the farmers of the State.

Resolved, That we commend the holding of farmers' institutes in every section of Virginia. We feel that the State Board of Agriculture in fostering this movement is pursuing the proper policy. Those of us who have had the pleasure of attending the district institutes feel that much good has been accomplished through that medium, that they are in a sense traveling schools of agriculture, that their number should be increased, and that only the best and ablest speakers should be secured. We appreciate most heartily the policy of co-operation which the State Board of Agriculture and the Board of the Virginia Polytechnic Institute has seen proper to pursue with reference to holding these meetings, and trust that the harmonious relations may continue in the future.

Resolved, That the thanks of the Institute be conveyed to the Board of Trade and the citizens of Roanoke for providing a place of meeting, and for the many courtesies received during the sessions of the Institute.

Resolved, That we extend our thanks to the daily press of the State, and to the weekly and agricultural papers, as well, for their kindness in printing notices with reference to the meeting, and in giving it the necessary publicity to insure its being a success.

Resolved, That we extend a special vote of thanks to the speakers who have come long distances to help to make this meeting a success. We appreciate their self-sacrificing assistance most heartily.

Resolved, That we endorse the efforts being made to educate the farmers of Virginia along agricultural lines through the strengthening of the courses of instruction in the College of Agriculture and the expansion of its influence by the attendance of the members of its teaching staff on farmers' institutes. We realize most fully that there is a close relation between scientific truths and successful agricultural practice, and that there are millions of dollars being wasted every year through the misguided efforts of our farmers. We feel that agricultural education will have a most benign influence on the rural districts, that the State should foster in every possible way this class of education, and that the

College of Agriculture, at Blacksburg, should be strengthened by liberal appropriations so that it may be thoroughly equipped and in position to do its work most effectively.

Resolved, That we are in favor of desirable immigration into Virginia, and we commend the efforts being made by the railroads to bring in a high class of northern and western farmers; that we are most anxious and desirous of having immigrants brought from Great Britain and Northern Europe, believing that there are unexampled opportunities open to people of limited means in this State, and realizing, as we do, that the labor problem is the most serious one confronting the farmers of Virginia, and that the agricultural progress made in this State in the future must be determined largely by the efficiency, availability and cost of labor, and that liberal appropriations should be made for this work, and that united effort should be made to bring about this very desirable result.

Resolved, That we approve of the efforts of the Executive Committee and the members of this Institute associated therewith for their untiring efforts in securing legislation favorable to the cause of agricultural education and the expansion of the work of the Virginia Experiment Station. These gentlemen spent much time and cheerfully expended a good deal of money in the interest of our organization, and they are entitled to our sincere and grateful thanks.

Resolved, That this Institute commends the efforts made and the arrangements now being carried out for the establishment and the holding of an annual State fair in the city of Richmond, and pledges its support to the same in the way of exhibits of live-stock and agricultural and horticultural products; and this Institute also commends the support of all other local fairs throughout the State.

Resolved, That we are in favor of good roads, which have been familiarly called the "highways of commerce," and which will do more than anything else to mitigate the objections to country life, to bring the farmer closer in touch with the centers of consumption, to make easy the means of communication, to lessen the cost of transportation from the farm to the market, to improve social conditions in the country, increase the value of our property, and that any legislation affecting this question should properly safeguard the interests of the farmer.

Resolved, That the thanks of this Institute be conveyed to the Board of Visitors of the Virginia Polytechnic Institute and to President McBryde for

the delightful lunch and other courtesies extended during the visit to Blacksburg.

Resolved, That we approve the various forms of co-operation in the interests of farmers; that we favor the establishment of farmers' exchanges in various parts of the State. We believe that the farmer obtains less in proportion for his products than he is justly entitled to; that the trusts and other organizations formed in restraint of trade are a menace to our agriculture, and that the farmers themselves must, through educated and united effort, bring about a better condition of affairs, so they may obtain a just reward for their labor.

Resolved, That the bee-keepers of the State be recognized by our Institute, and that the subject of bee-keeping be included in the programme of our next meeting.

Resolved, That we favor the policy of establishing sub-stations through the agency of the Central State Experiment Station; that we approve most heartily of the small appropriation made by the State for the undertaking of work in the tobacco belts, and that we believe that larger appropriations should be made in the future, so that work may be undertaken in other sections.

Resolved, That the Institute strongly condemns the action of the International Harvester Co., in the course it has taken in refusing to carry repairs for any machines more than two years old in the hands of local dealers, thus indirectly endeavoring to impose on the farmers the cost of buying one of the two machines which it is understood that the combine will in the future only make. It is suggested that farmers in order to meet this action should purchase machines not made by the combine unless this arbitrary action be rescinded.

TO VIRGINIA DAIRYMEN.

The Hollins Institute, Hollins, Va., writes us that it wants to contract for 200 pounds of butter per week. What Virginia farmer can fill this order Write the Institute.

Halifax Co., Va., Mar. 8, '06.

While I have only recently subscribed for the Southern Planter, yet I think it the best farm journal in the South.

THOS. J. BASS.

Hanover Co., Va., Mar. 4, '06.

I am very much pleased with the Southern Planter and look with pleasure for its coming.

DR. H. B. ANDERSON.

THE Southern Planter

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WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. Criticisms of Articles, Suggestions How to Improve THE SOUTHERN PLANTER, Descriptions of New Grains, Roots, or Vegetables not generally known, Particulars of Experiments tried, or Improved Methods of Cultivation are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of post.

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PUBLISHER'S NOTES.

To Advertisers.

Be sure to send in your copy of instructions on or before the 25th of the month for the following month's issue. This is imperative.

Fauquier Co., Va., May 1, 1906.

The older I get the more I value and appreciate The Southern Planter and its accomplished editor.

T. T. SMITH.

A NEAT BINDER.

We have recently received a new supply of Binders for the Southern Planter. This is a very neat and durable device for saving the entire volume intact. It will prevent soiling and turning up of the corners. Get one now and fasten your copies in it as they are issued and at the end of the year, you will have a valuable reference volume. Price, 30 cents, postpaid.

WHOSE MONEY?

On June 25th, we received a remittance, post marked "Birdsnest, Va." but without any means of identifying the sender. As we have a number of subscribers at this and nearby offices we are unable to credit it. If the rightful owner will describe said remittance we will cheerfully place it to his credit.

WITH THE ADVERTISERS.

"The Moulting Season" is the title of a little folder issued by the Richmond Advertiser, giving some information about "Rarva" meat meal advertised in this issue.

The O. K. Champion Peanut Digger is offered our readers in a half page ad elsewhere in this number. Send for descriptive circulars.

The Continental Plant Co starts the season's advertising with an attractive announcement on another page.

The Marvin Smith Co has an advertisement in another column to which attention is invited.

The Avery Mfg. Co., is offering its Cotton and Corn stalk cutter to our readers this month.

The Kemp & Burpee Mfg. Co., resumes advertising its well known "Success" Manure Spreader—a most valuable machine—this month.

The German Kali Works have a seasonable announcement on another page.

The Hensch & Dromgold Co., offers its Grain Drill as usual this season. Look up the ad.

Mr. Parkin Scott offers his "American Beauty" strain of Barred Ply-

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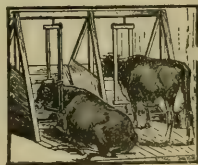
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WARRINER chain hanging stanchions save cost in feed in winter, says H. A. Moyer, Syracuse, N. Y. I think them perfect, writes I. B. Calvin, Kewanee, Ind., vice-president state dairy association. Send for booklet containing further information to WALLACE B. CRUMB, South St., Forestville, Ct.

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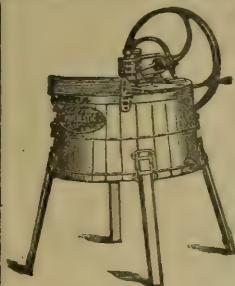
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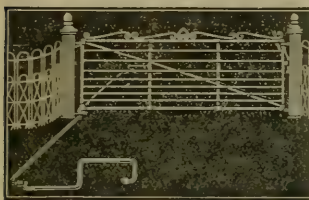
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AN OPPORTUNITY FOR MEN OF MILITARY EXPERIENCE, OPENINGS FOR STUDENTS OF THE VARIOUS MILITARY IN- STITUTIONS OF THE STATE IN THE POWHATAN GUARD OF THE JAMESTOWN EX- POSITION.

Under the supervision of Capt. Henry W. Carpenter, of the United States Marine Corps the Jamestown Exposition is organizing a military force to be known as the Powhatan Guard, for the purpose of policing the grounds and of keeping the peace and order of the entire Exposition. Capt. Carpenter is sending out, upon application, an enrollment blank, which enables him to ascertain the value of each applicant.

A limited number of these blanks are being sent to the various military institutions of the State in the hope of securing the services of some of the students, whose military experience makes them desirable to fill the ranks of this organization. The entire command of the Guard is in the hands of Capt. Carpenter, who intends to carry on the work under the strictest military discipline.

In the enrollment of the Guards, men of military experience, who have served either in the army, navy or marine corps, State militia or military colleges will be given first consideration.

Capt. Carpenter, who has been detailed by the Navy Department to command the Exposition Guards, has established his headquarters at the Atlantic Hotel, in Norfolk, Va. His career has been a very interesting one, and owing to the wide experience he has had in the reception of foreign guests, he is perhaps the most efficient officer that could have been detailed for the position.

The Guard will be organized as a battalion of probably four companies, and commanded as are the United States troops. The uniforms are to be of a simple, yet impressive design, consisting of a gray blouse and trousers of a military cut and the regulation uniform, with the addition of riding breeches and black strap leggings. A white sun helmet and uniform of cotton duck will also be provided for hot weather.

Capt. Carpenter has formulated the following conditions of enrollment in the Guard: Applicants must be between the ages of 21 and 40, of not less than 5 feet 8 inches in height, and must have served either in the U. S. Army, Navy, Marine Corps, U. S. or State Volunteers, National Guard, or in some military school or college.

The salaries to be paid to the enlisted men are as follows: Mounted men, \$30; unmounted men, \$25 per month, with an increase for non-commissioned officers. In addition to this



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Some time ago B. W. Gilles gave the
following advice in Farm and Ranch:
"I advise any man with as many as
eight cows to use a hand-power cen-
trifugal separator, and get one of the
best." To this D. Y. Zachery, of Ce-
ment, Okla., made the following re-
ply: "I want to say that such advice
as that beat me out of the use of a
separator for ten years, for I never
had the eight cows, and believing from
all that I could find out, it would take
at least that many to run a separator,
I had to wait; but by storing and ju-
dicious marketing a fine crop of po-
tatoes I found myself in possession of
five bales of 11-cent cotton and no
debts to pay, so decided to get a sepa-
rator, though I only had four cows,
and one of them but eighteen months
old.

"I got the separator the last of De-
cember and put it to work, and we
sold 103 pounds of butter in January
and have added four more cows now,
and are pulling for at least 2,000
pounds this year. After six weeks' ex-
perience I would advise any one
getting as much as four gallons of
milk, if butter is the object, to use a
separator.

"I shall never know whether I got
the best make or not, as I examined
several catalogues, and they all claim-
ed to have the best, but I settled on
one made by the Davis Cream Sepa-
rator Co. (Catalogue No. 126). 54 N.
Clinton St., Chicago, and am well
pleased. We separate the milk as
soon as we get it, give the separator
milk to the calves and pigs, and they
all seem to enjoy it and keep fat with
very little other food. We ripen the
cream and use a barrel churn, and
use a dairy thermometer to get the
right temperature. We work the but-
ter well, press in a brick mould and
wrap in butter paper, and it is no
trouble to sell at a good price. I also
have 15 acres in commercial orchard.
so will have to depend on some one
else to raise cotton."

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Arnold N. D., Feb. 8, 1906.
Dr. B. J. Kendall Co., Enosburg Falls,
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Respectfully, JACK WUMDELL.

Northumberland County, Va.,

May 13, 1906.

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thern Planter for thirty or more years
and cannot do without it.

H. H. BLACKWELL.

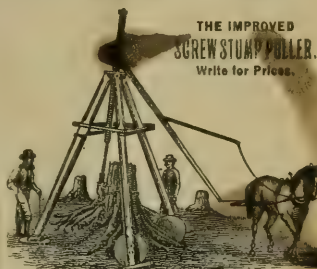
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63.—516 acres. Natural Blue Grass land. About half of the place well set in grass; over 100 acres in old sod; splendid fences; water in all the fields; two running streams through the farm. Elegant young orchard, in full bearing; apples, peaches, pears and cherries. Farm is situated in a refined neighborhood, on a good, public road, with an elegant view of the mountain, and a broad stretch of cultivated land. Land is a little rolling, has about 100 acres of fine timber. This farm has the reputation of making fat cattle and sheep; situated 4 miles from the station, 1 mile from church, stores, mill and postoffice; 25 miles from Washington, by pike. Dwelling is a good 5 room house, with good, deep well in the yard, new sheep barn, good stable, corn house, and other out-buildings in good repair. The owner is getting old, and wants to sell. Price, \$8,000, on very easy terms.

No. 98.—132 acres. Every acre fine land, smooth and free from stumps, washes and waste places. Nearly all in grass. Nice clear stream running through the place. Two acres in orchard. All kinds of fruit. Land is heavy chocolate soil, easy to work, and produces abundantly. Has 5 acres of timber, rest is cleared and in good state of cultivation. Situated on a macadamized pike leading in to Washington. 20 miles from Washington. Dwelling is a new 8 room house, handsomely furnished, with good cool well at the back door, new barn just completed, new corn crib, good granary, hen houses and hog house. Situated in an elegant neighborhood of refined Virginians, close to schools, churches and store.

Price, \$5,500. Terms to suit.

No. 108.—136 acres, 60 acres cleared, balance in good timber; some very heavy white oak. This land is all good and smooth, a little rolling. Watered by springs and one well. Located on the Washington and Winchester Pike, 23 miles from Washington, in Loudoun county. One-half mile to churches, schools, mill and store; mail delivered at the gate. Dwelling is a 5 room house in good repair. Good stable, shop, and other small out-buildings. Good young orchard in bearing, with all kinds of fruit. This farm is situated 6 miles from the railroad, but the market wagons pass every day, and afford a good market at the door for all kinds of farm produce. Price, \$1,800.

No. 109.—140 acres, 25 acres in good timber, balance cleared. Situated in Loudoun county, 3 miles from station, 6 miles from Leesburg. Land is a fine mahogany soil, adapted to all kinds of grain and grasses, in a high state of cultivation; 4 acres of apples, peaches, pears, plums and cherries. Land is rolling, with 25 acres of fine bottom land; it is watered by running streams, spring and well. The dwelling is a nice 7 room house, with nice lawn, corn house, granary, wagon shed, poultry house, all in good repair, two good barns, one 3x40 and the other 3x40. This is a handsome farm and very productive. Price, \$4,250.

WM. EADS MILLER, Herndon, Va.

RECENT SALES OF STOCK FROM GLENBURN FARM, ROANOKE, VIRGINIA.

Roanoke, Va., July 18, 1906.

Editor Southern Planter:

I beg to report the following recent sales of Berkshires

Imported Glenburn Catch 84794, to Mr. T. O. Sandy, Burkeville, Va.

Caramel 2nd 90481, and litter of 6 pigs, to Mr. Thomas B. Scott, Burkeville, Va.

Toppers Star to Walter Shewey, Wytheville, Va.

Guilford Baron to J. B. Strickler, Floyd C. H., Va.

Lady Dair and Victors Hightide to Dr. Livius Lankford, Norfolk, Va.

Gems Dora, Hunters Serene, Toppers Governess and Lady Burton 2nd, to W. R. Walker, Hickory Grove, S. C.

Gem's Dimple, Luxury's Lady and Man's Topper to John E. Graham, Salem, Va.

Imported Peel Premier 90483 to S. S. Withington, Adrian, Mich.

Glenburn Victor, Hunter's Mab and Glenburn Express to E. D. Diller, DeTour, Md.

Glenburn Commoner to Thomas B. Scott, Burkeville, Va.

Hightide Victor, Melody's Beauty, Fancy 3rd and Lady Guilford 78879, to Dr. C. G. Cannaday, Roanoke, Va.

Victor's Commoner to G. C. Metzger, Hollins, Va.

Mab's Sir Visto to H. B. Stebbins, Paces, Va.

Victor's Queen and Hunter's Superb to W. W. Carder, Green Spring, W. Va.

Victor's Ruby to John F. Grass, Piney Flats, Tenn.

Hunter's Jeweler to Harrie Smoot, Snerrysville Va.

Tonner's Governor to John C. Henry, Bluff City, Tenn.

Imported Hall Mark Serene 84795, Lee Topper 73068, and Fancy 2nd, to Dr. A. A. Cannaday, Roanoke, Va.

Hunter's Loyal and Fancy of Glenburn to H. K. Foster, Hubbard O.

Hunter's Freshman to Penna. Berkshire Co. Fannettsburg Pa.

I attribute the above sales largely to my advertisement in your excellent paper.

J. D. KIRK,

Prop. Glenburn Farm, Roanoke, Va.

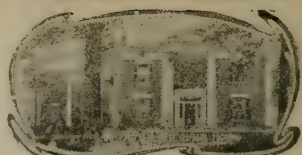
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Wilton Jct., Ia., Jan. 7, 1906

Dr. B. J. Kendall Sir:

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Yours truly, JULIUS GRODERT.



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Last year, I suggested the use of tartaric Acid as a preserving medium for corn, snaps, and peas. I wish to repeat what I said then that it is the simplest and easiest, and withal the surest way of which I know.

If any have found it unsatisfactory, there must have been some mistake about the quantity or the quality of the acid used. If you find that cold water will not take out the taste, try soaking the corn in hot water with a teaspoon of soda in it. This vice I had from a Professor of Chemistry, who went on to say that there could be no possible harm from the acid.

TO CAN CORN.

Cut the very tender corn from the ear and fill it into the kettle, covering with water. Let it boil up and keep boiling for ten minutes. Just before taking it from the fire add to every ten pounds of corn one ounce of tartaric acid and let it mix well through it. Fill the jars very full—screw on the top at once. Great care should be taken to have the jars and tops and rubbers scalding hot when you put the corn in.

CAN SNAPS.

Gather them just as soon as they are big enough to use and put them in a big kettle. I use one of the large tin cans that lard came in. Cover the snaps with water and boil until nearly done.

To five gallons, add one ounce of the tartaric acid and boil a few minutes longer. Fill your cans and screw the tops on while the mass is boiling; they are as good as if fresh from the vines. All these things put up with tartaric acid must be soaked for at least an hour before they are used, either in hot or cold water. I have repeated recipes because I know that the family of the Planter is continually growing larger and I want the new members to get the benefit. The older ones, I am sure, will forgive the repetition.

PLUM JELLY.

We always try to get the gully plums to make jelly with they are so acid, and have so much more jelly in them. If they are not to be had, gather any other kind just before they begin to ripen and after washing thoroughly, put them in a granite or porcelain

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kettle and almost cover them with water. Set them on a hot place on the stove and let boil until they are separated from the seed; then turn them into a double bag and hang it up all night to drip. In the morning, measure the juice and put it back into the kettle. Weigh one pound of sugar to each pint of juice and put in into a biscuit pan lined with paper, set this inside the stove and let it get very hot. When the jelly has boiled for ten minutes slowly, add the hot sugar and let it boil hard for twenty-five minutes longer. Some times it takes even longer to get done. Never seal it until it is jellied. Put a piece of white paper wet with whiskey on top of each glass and it will prevent the mould. Keep in a dry place.

CARAMEL ICE CREAM.

To make the Caramel, put three cups of sugar into the frying pan (And be sure that the frying pan is as clean as Sapolio can make it.) Set the pan on the stove and let the sugar gradually melt without stirring. Then let it cook for a while until it is a rich brown. You can tell by dipping the spoon in it whether it is burned enough, then pour in three cups of boiling water, stir just as hard as you can while you are pouring in the water and keep stirring for a few minutes to prevent flaking. It sputters dreadfully, and you will be burned if you are not careful. It should boil down to the consistency of molasses. This will keep indefinitely, so I generally make up a good lot and keep it in a glass jar. Make a custard for the cream with one quart of milk, three eggs, two tablespoons of cornstarch, let it boil until done and then pour it over four cups of sugar, add two quarts of cream and as much of the caramel as you find pleasant to the taste and a cup of almonds, blanched and cut up. Freeze several hours before serving, as it is much better if kept awhile. This amount will fill your gallon freezer.

LIGHT GRAPE WINE.

Pick the ripe fruit from the bunches and press out the juice. Measure one quart of juice and add three quarts of water and two pounds of sugar. Dissolve the sugar perfectly and set the jug in a cool place where there is no chance of its being shaken, tie a piece of cheese cloth over the mouth to keep out insects and do not cork for six weeks or two months. This rule does not always succeed, but when it does, it makes a very fine wine.

FRUIT LEATHER.

This is equally good made of peaches, pears, apples or damsons. Peel the fruit, (but I have seen it made good without peeling it) and stew it to a thick jam, with as little water as you

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ful practice.

He soon began to agitate the question of establishing a medical college in South Carolina. He was the mover of the petition to the legislature to grant a charter for this purpose, and the petition proving successful, the school went into operation immediately and he was elected professor of the institutes, and practice of medicine, a position which he filled for 3 years, resigning it in 1832. In 1847 he was called to the N. Y. university to fill the chair of Prof. Revere, but after 3 years, he returned to Charleston, and continued to fill with distinction, the same position there. On his departure from New York, a journal of that city spoke of him in the following terms: "Dr. Dickson is one of the most classically elegant writers upon medical science in the United States. He ranks with Chapman and Holmes in the grace of his periods, as well as the thoroughness of his learning, and the exactness and activeness of his logic. Like Holmes, too, he is a poet and a very accomplished literateur, generally."

The following is a list of Dr. Dickson's work:

"Dengue, its history, pathology and treatment," published in 1826 or 7, when that disease was prevailing in the West Indies and the Gulf States.

"Essays on Pathology and Therapeutics," 1845, substance of lectures delivered before the Medical College of S. C.

"Essays on slavery," 1845.

"Essays on Life, Sleep and Pain," 1852.

"Elements of Medicine, a compendious view of therapeutics and pathology," 1855.

After the Civil war, in which he lost his property, he was called to the chair of the practice of medicine in Jefferson College, Philadelphia, where he was associated with such men as Meigs, Dunglison and Pancoast.

In 1868, he contributed to Linnicott's Magazine some interesting papers on the correlation of forces.

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Although a life long devotee to science, Dr. Dickson was also a man of fine literary gifts and attainments, and a poet of no mediocre order, as will be evinced by the subjoined beautiful and pathetic lines, written on the occasion of his leaving his old home, and moving to the North, at 27 years of age, after the war. He has taken for his title the Celtic emigrants mournful refrain, meaning, "We return no more."

Ha til mi Tulladh.

Farewell to all I have loved so long
Farewell to my native shore,
Let me sing the strain of a sweet old

song,

I return, I return no more.

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It breaks my heart from friends to
part,
And mine eyes, mine eyes the tear
drops pour.
While mournfully I repeat the cry,

I return, I return no more.
Though here I breathe in ample space,
And gather with fuller hand,
Nought can efface one single trace,
Of my own dear nature land.

With many a beat my pulses throb,
And mine eyes, mine eyes the tear
drops pour,
While wearily I repeat the cry,
I return, I return no more.
When others sleep, I wake and weep,

To think of joys long past,
And wish and pray for the happy day
That shall bring repose at last.

Sad memories fill my soul with gloom,
And mine eyes, mine eyes the tear
drops pour.
While mournfully I repeat the cry,
I return, I return no more.

Amongst the scientific writers of
the South, I may mention Dr. John
Lawrence Smith, of S. C., (1818-1883).
He played many various parts in life,
and played all of them well. He
started life as a civil engineer, and
afterwards became a physician, and
still later professor of chemistry, in the
University of Virginia, but did not
retain this position long. In 1867, he
was U. S. Commissioner to the Paris
Exposition and in 1873 to that of
Vienna, and in connection with these,
prepared valuable reports on indus-
trial chemistry.

In 1876 he was one of the judges
at the Philadelphia Centennial, and
wrote the report on petroleum.

In 1874, he had been chosen pres-
ident of the American association for
the advancement of science. He had
the best collection of meteorites in the
United States, having purchased that
of Dr. Girard Troost and greatly en-
larged it. This collection is now in
the possession of Harvard University.
Dr. Smith published more than 70
scientific papers, many of which were
gathered in his "mineralogy and Chem-
istry Original Researches," of which
an enlarged edition, with biographical
sketch, was issued after his death,
which occurred on October 12, 1883
after a life rich in intellectual and
useful activity, and in which he had
ably filled many positions of honor
and trust.

The learned and gifted Le Conte
Brothers, John and Joseph, may be
classed amongst the scientific writers
of the South, though they are chiefly
known as great educators. John was
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1823, both sons of Dr. Lewis Le Conte,
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If you want high class business birds, I can please you. Money back if not satisfied. L. W. WALSH, Box 248, Lynchburg, Va.

a physician, but later became professor of natural philosophy in Franklin College. In 1869, he moved to California, and was made professor of physics and industrial mechanics in the newly established University of California, of which he became president in 1875. He published many important papers on physical science in scientific journals, and on the proceedings of learned societies. He prepared a treatise on general physics, which when nearly completed was destroyed by the burning of Columbia, S. C., in 1865.

Joseph followed very much in his brother's footsteps. He started life as a physician, but afterwards studied natural history under Agassiz, at Cambridge, and in 1853, was made professor of this branch at Franklin College, and in 1856 became professor of chemistry and geology in the S. C. College. In 1869, he accompanied his brother to the University of California, where he was made professor of geology and natural history. Besides important scientific papers, he published essays on education and the fine arts and the relation between religion and science.

A REMEDY FOR HEAVES.

Persons owning horses that are troubled with Heaves or Cough should be interested in learning of the Prussian Heave Powders, which are manufactured and guaranteed by the Prussian Remedy Co., of St. Paul, Minn. They have the exclusive right for the sale and manufacture of these powders in this country, and sell them under an absolute guarantee to give satisfaction. This company has sold these goods for over 20 years in this country, and to-day have a large trade in every State in the Union. We recommend any one having a horse troubled with Heaves or Cough to write to the Prussian Remedy Co. Price of the Heave Powders by mail, 60c.; at dealers, 50c.

Campbell County, Va.,

April 19, 1906.

I have been a reader of The Southern Planter about 35 years. As an instructor it stands without a peer.

JNO. E. LEE.

Prince George County, Md.,

May 3, 1906.

I have enjoyed The Southern Planter, and have been greatly instructed by same.

F. W. HILL.

Prince George County, Va.,

April 20, 1906.

I always welcome the arrival of The Southern Planter and enjoy reading it, for it is full of valuable suggestions and practical ideas, and I believe it will and is doing much to the betterment of the people and land.

A. CARY HARRISON.

**Glenoe Farms
Verona, N. C.**

We desire to announce to the public that we have purchased the entire BILTMORE STRAINS of S. C. and R. C. WHITE LEGHORNS and S. C. BROWN LEGHORNS, acquiring all their prize winners, interest and will for said breeds; in addition to the fine strains that we have been carrying, BARRED PLYMOUTH ROCKS, WHITE WYANDOTTES, LIGHT BRAHMAS, WHITE and PARTRIDGE COCHINS, WHITE CRESTED BLACK SPANISH, BRONZE TURKEYS and MUSCOVY DUCKS and MAMMOTH ROUEN DUCKS.

We will be glad to quote you prices on stock and eggs.

AMERICAN BEAUTY STRAIN.

**Barred
Plymouth
Rocks.**

Farm Raised.

125 Cockerels, \$2 to \$5 each;

100 Pullets \$1.00 each.

PARKIN SCOTT, Ashland, Va.

GLENVIEW ORPINGTONS.

Single Comb Buffs, exclusively. From June 1st, eggs for hatching from my best matings will be only \$1.50 per setting. Your opportunity.—B. S. HORNE, Keswick, Va.

**Valley Farm
BARRED ROCKS****S. C. B. LEGHORNS**

500 CHICKS, some show birds

Some for utility.

CHAS. C. WINE, Mt. Sidney, Va.

EGGS

At reduced prices for July and August.

My stock is all tested by the "Walter Hogan System" and no bird kept except those that give promise of large egg production. Some promising Cockerels coming on. BUFF ORPINGTON, B. I. RED and WHITE WYANDOTTES

FOREST PARK FARM, Williamsburg, Va.,
Charles W. Smith, Prop'r.

SINGLE COMB

RHODE ISLAND REDS

Old and young stock for sale. JNO. W. MORRIS, Waldrop, Va.

REDS.**THE THOROUGHBREDS.**

The three Reds for sale.

Red Polled Cattle.

Red Duroc Jersey Hogs.

Rhode Island Red Chickens

The Red Polled Herd is headed by the Royal Blooded Herodotus—weighs over 2,200 pounds and traces his lineage to sturdy Scotland.

The sire of Prince Harriman took first prize of Durocs at St. Louis in 1904.

Rhode Island Red Chickens—remarkable for their rich, red coloring, the cocks being magnificent in plumage. The eggs of this breed are large in size, fine color and good flavor. The chicks are all hardy, pullets mature at an early age.

Now ready for market.

Red Polled Bulls.

Red Duroc Jersey Hogs

Rhode Island Red Chickens

Write me for prices.—JOHN H. HATFIELD, Harriman, Tenn.

I HAVE

established which is undoubtedly one of the richest and truest reproducing strains of Actual Line bred

Columbian Wyandottes

In the United States they are destined to be the premier variety of

America's Most Valued Breed.

MY

White Wyandottes

are excellent layers.

Why not procure pure New Blood from me this year and lay the foundation of a persistent, rough weather laying flock—the kind that pays.

Correspondence Invited.

COLFAX SCHUYLER,

BREEDER AND JUDGE,
Jamesburg, New Jersey.

FINE POULTRY.

I can supply your wants in this line and can save you money. Write me, I want a Cyphers Model Incubator and Brooder; will exchange poultry or a good Square plan.

JOHN E. HEATWOLE,
Box L, Harrisonburg, Va.

**ROSE COMB WHITE LEGHORNS
BUFF PLYMOUTH ROCKS**

Stock for sale. Eggs in season.

FRED NUSSEY,

Massaponax, Va.

HINTS BY MAY MANTON.

No matter what other styles may come and may go, some form of the sailor costume is always in vogue, and always in demand by young girls. It suits them admirably well, it is thoroughly comfortable and satisfactory to wear while it is smart in effect and can be made from a variety of materials. This one includes a number of novel features, the applied yoke on the waist and the yoke on the skirt being notable favorites, and can be made from washable fabrics or from light-weight serge or flannel. In the illustration, however, white linen is trimmed with blue banding. White serge is well liked and is always pretty and attractive while it is never too warm for certain days even in the warm months, and blue serge is eminently serviceable, but there is a charm about linen and French pique that is sure to make them welcome.



5388 Misses' Sailor Costume,
12 to 16 years.

The costume consists of the blouse and the skirt. The yoke is applied over the blouse and there is an opening cut at the front for a portion of its length, which is held together by means of lacings and eyelets, while the neck is finished with the sailor collar. The shield is separate and is closed at the back and the sleeves are the new ones that are tucked at the wrists and gathered at the shoulders. A casing is applied over the waist line

College of Agriculture and Experiment Station.

BLACKSBURG, - VA. BEEF CATTLE.

ANGUS—2 well developed bull calves. These are well bred individuals nine months old.

SHORTHORNS—2 mature cows, 2 heifers and 2 bull calves. It becomes necessary to reduce the Shorthorn herd, and this is a good opportunity to secure some good individuals.

HOGS.

BERKSHIRES—A few boar pigs for July or August delivery.

SHEEP.

DORSETS—A few ram lambs for August or September delivery. For prices and other information, apply to JOHN R. FAIN, Agriculturist.

RAISE SQUABS!

Very profitable and easy work.

For prices on best

MATED HOMERS.

And information about this Money making Business. Address: THE CHEVY CHASE SQUAB CO., Kilmarnock, Va.

SPRING BROOK POULTRY FARM,
Culpeper, Va.

S. C. B. LEGHORNS and Black Minorcas

exclusively. 12 and 20 Cockerels, 50c. up according to quality. Eggs in season. Satisfaction Guaranteed.

REDUCED PRICES ON EGGS

for balance of season. BUFF ORPINGTONS, 15 for \$1.00. BARRETT ROCKS, 15 for \$1.00.

Express paid on two settings or more when order is accompanied with the cash.

—QUEENLAND FARM, Hagan, Va., R. F. D. 2, Box No. 7.

POSITION WANTED

as farm manager, have first class experiences in farming, dairying, cattle, sheep, swine and poultry, also gardening, flowers, fruits and vegetables. R. S., care of Southern Planter.

2 GEN INCUBATORS

120 and 60 egg capacity, also brooder for sale. In perfect condition. C. E. TINGLEY, Ford, Va.

6 PURE-BRED**BEAGLE PUPS**

6 weeks old, for sale. Fine hunting stock. Write S. C. SMITH, Croxton, Va.

SKIN PARASITES

Live and multiply in the skin of the sufferer from tetter, itch, ring worm, and similar skin diseases. It is horrible for one to be fed upon in this manner. Fortunately the sufferer is no longer helpless. One box of Tetterine will destroy the germs and restore the skin to a perfectly healthy condition. Physicians prescribe and druggists endorse it. 50 cts. at druggists, or by mail from J. T. Shuptrine, Savannah, Ga.

A Neat Binder for your back numbers can be had for 30 cents. Address our Business Department.

Overton Hall Farm

Nashville, Tenn.

J. N. Overton, Prop. Reuben Gentry, Mgr

The Stock Farm where INDIVIDUAL MERIT is the FIRST consideration.

JERSEYS.

both. Imported and home-bred, backed by tested dams of highest merit as individuals

BERKSHIRES.

of the leading English and American Strains, backed by individual merit, second to none in the world.

Write for new descriptive circular giving prices and pedigree.

Address all letters to OVERTON HALL FARM, Reuben Gentry, Mfg., Sta. B., Nashville, Tenn.

BERKSHIRES.

Of all ages for sale; sons, daughters or grandchildren of BLANWOOD CHIEF OF BILTMORE, COMMANDER'S BEAUTY, MASON OF BILTMORE II, MY DAISY OF BILTMORE II, LOYAL LEE'S CYNTHIA OF BILTMORE 4TH purchased from Biltmore Farms, and KING HUNTER and Berkshire of Biltmore, owned by Biltmore Farms.

BEAGLE PUPPIES FOR SALE.
ROBERT HIBBERT, Strines Farm, Charlottesville, Va.

BERKSHIRES.

Send in your orders for pigs or sheats. We will ship you good individuals, superb in conformation, marking and health. We breed for the Farmer who wishes to improve his herd, or start a new one. If you can do so, come and see our stock.

WALNUT GROVE FARM,
W. J. Crags, Manager, Shaverville, Va.

BERKSHIRE BOARS.

I offer some exceedingly choice young boars for sale; by Imported Danesfield Tailor, 78490 and out of Biltmore bred sows. It will be hard to find better or cheaper stock

HENRY WARDEN, Fredericksburg, Va.

Hawksley Stock Farm

Has a few fine BERKSHIRE PIGS yet for sale, from Imported Stock. Prices right. Satisfaction guaranteed. J. T. OLIVER, Prop., Allen Level, Va.

Registered P. China Berkshire
C. Whites. Large strain
All ages mated out skils.
8 week pigs. Bred sows.
Service boars. Guernsey
calves. Scotch Collie pups and poultry.
Write for prices and free circulars.
P. F. HAMILTON, Cochranville, Chester Co. Pa

FOR SALE.

1 Registered JERSEY BULL, 3 years old.
1 No. 2 Sharnes Separator, perfect order.
S. C. BROWN LEIGHORN Eggs from choice
Birds. I will make prices to suit you.
RIVER VIEW DIARY FARM, Rice Depot,
Va., C. M. Bass, Proprietor.

of the blouse and in this casing are inserted tapes or elastic that regulate the size. The skirt is seven gored, laid in inverted plaits at the back. The yoke is applied over the side and back gores and laced together at the back, while the front gore is left plain and the opening is made at the left side.

The quantity of material required for the medium size (14 years) is 9-3-4 yards 27, 6 yards 36, or 4 1-2 yards 44 inches wide, with 6-3-4 yards of banding.

The pattern 5383 is cut in sizes for girls of 12, 14 and 16 years of age.

No other suit quite takes the place of this simple one made with blouse and knickerbockers. It is so loose and so comfortable that the boy can



5386 Boy's Blouse Suit, 4 to 12 years.

enjoy the active life to his heart's content without feeling in the least hampered, while it is always trim and becoming. In the illustration it is made of natural colored linen, simply finished with stitching and is closed with buttons and button-holes, but linen in white and all colors, chambray and all similar materials are appropriate for the warm days, while light-weight serge and flannel are liked for cooler weather.

The blouse is made with fronts and back, and is drawn up at the waist line by means of elastic inserted in a hem. There is a patch pocket and the roll over collar is joined to the neck by means of studs and button-holes. The sleeves are tucked at the wrists to give the suggestion of cuffs. The knickerbockers are shapely at the same time they are comfortably loose, and like the blouse are drawn up be-

Large Yorkshire AND Berkshire Hogs.

Pigs of both sexes. Glits, ready to breed. Boars ready for service. TWO ANGORA BUCKS. H. D. COLEMAN, Ivy Depot, Va.

..... 5 REGISTERED 5

Yorkshire Boars

by Holywell Hatfield 2nd, for sale. Farrowed May 15th. BARNES COMPTON, Charlottesville, Va.



Salt Pond Herd.

DUROC JERSEYS.

PAUL J. 21625, son of Oom Paul, head of herd. Sows by Red Rover, Jumbo, Longfellow and other noted sows. A choice lot of Pigs at reasonable prices, ready to ship.
B. A. WHITTAKER, HOPEVILLE, VA.



Southdown Sheep

and ESSEX PIGS

A fine lot of Southdown lambs, pure stock Essex Pigs ready for shipment in June, July and Aug. Your orders solicited.
L. G. JONES, Tobaccoville, N. C.

Imported Large Yorkshire Pigs

From Lord Roseberry's Herd.

A Yearling, Herd-Header

Poland-China Boar

Cheap, to avoid inbreeding

Poland-China Pigs \$5.00

A. No. 1, Young Angus Bulls.

Stock the best. Prices the lowest.
Overbrook Farm, 8 W. Conway St. Balto. Md.

THOROUGHBREED

Berkshire Boars,

Jersey Bull Calves,

Orset Buck Lambs.

Sire of Calves, FLYING FOX 65456, son of Flying Fox who sold for \$7,500 at the Cooper sale 1902.

All stock in best of condition and guaranteed as represented.

F. T. ENGLISH, Centerville, Md.

Poland China Pigs

Some fine ones, young sows bred, young boars and pigs. No better breeding in the United States. My herd boars have been bred by J. H. Sanders, Lookmeover. Perfect I know. Proud Perfection, Corrector and High Roller, the greatest prize winners of the breed—my sows have been as carefully selected.

RED POLLED CATTLE. Fine good young bulls will sell for fine cows and heifers. VERMILION STOCK FARM, Charlottesville, Va., SAM'L B. WOODS, Prop.

A Neat Blender for your back numbers can be had for 30 cents. Address our Business Department.

REGISTERED

Galloway Cattle.

If you want to raise an even lot of black hornless calves "built like hogs," try a

GALLOWAY BULL.

You can't get a better Bull for same money in other breeds.

A Galloway Bull is a perfect do-horned and will beget calves as like one another as 'peas in a pod.'

Start a herd now while prices are light

BULL CALVES AND YEARLING BULLS

For Sale. They are good and will be sold right; registered and transferred to purchaser without extra cost.

N. S. HOPKINS, Gloucester, Va

neath the knees and are kept in place by means of elastic inserted in the hems. There are three generous pockets, which in themselves commend the trousers to the small boy.

The quantity of material required for the medium size (8 years) is 3 3-4 yards 27, 2 7-8 yards 36, or 2-5-8 yards 44 inches wide.

The pattern 5386 is cut in sizes for boys of 4, 6, 8, 10 and 12 years of age.

We can furnish these patterns at 10 cents each. **The Southern Planter**, Richmond, Va.

SLOAN'S LINIMENT CURES LAMENESS.

To Whom it May Concern:

Having handled horses for twenty years, I will say that I never used anything like Sloan's Liniment for Rheumatism or Chords and all stiffness of the joints. It works quickly and does the work well. I had a horse who got a nail in his foot and was dead lame; I tried everything without much success until Mr. Billings told me to try Sloan's Liniment. I bought a bottle and used it. The Liniment was so penetrating that in one day the horse was much better, and had entirely recovered before the end of two weeks.

(Signed) J. L. RUSSELL.
Charge of Diamond Match Co.'s
Horses, Athol, Mass.

Halifax County, Va.

April 18, 1906.

I consider **The Southern Planter** a very fine paper.

GRAN CRADDOCK.

Northampton County, Va.

April 16, 1906.

I enjoy reading your valued paper.
M. SCOTT.

Loudoun County, Va.

April 16, 1906.

The **Southern Planter** is worth much more than the small amount of 50c.

J. R. BEUCHLER.

Rockingham County, Va.

April 19, 1906.

I think **The Southern Planter** is the best farm paper I have ever taken.

W. M. HEATWOLE.

Botetourt County, Va.

April 11, 1906.

I consider **The Southern Planter** one of the best farm papers published.

T. K. PECK.

Giles County, Va.

April 17, 1906.

I consider **The Southern Planter** of inestimable value to the farmers of Virginia and the Southern States.

JOS. B. MILLER.

HEREFORDS

If you are contemplating going into Beef raising, and now is the time, it will pay you to come here and look over the "Castalia" Herefords. I am quite sure that you will not only decide that the Hereford is THE beef breed for this section, but also that I am offering at marvelously low prices, individuals that it will be very hard to duplicate, much less to excel.

Have you ever figured the value of a pure-bred Bull in breeding up native Stock? The first cross will produce a "white face" veal which will fetch, in open market, double the price of a scrub. I can demonstrate this to your satisfaction. Think for a moment what a large return this is on your investment.

I have the best lot of Stock on hand I ever had, not an indifferent animal on the place. I am just in the right shape to talk "foundation Stock." How about a herd of say 4 cows or heifers and a Salisbury Bull? You come and make your own selections and I'll name price and terms which will enable you to take them away. I have some stock which should not leave this State and I am patriotic enough to cut off something on the "dollar" end and put on something at the "quality" end in order to keep it here.

For Sale: Mature Bulls for service in large herds; 2 year Bulls for use in both large and small herds; yearling Bulls; choice heifers. Write for prices, cows, already bred to one of my Choice Bulls; choice heifers. Write for prices, or better still, come and see the Castalia Herd and make your own selections. Carriage will meet anyone on appointment. MURRAY BOOCOCK, "Castalia," Keswick, Albemarle Co., Va.

HEREFORDS**Cottage Valley Offerings**

Several 15-16 GRADE ANGUS Bull Calves ready for service—will make fine bulls for grad ing up a herd.

A fine lot of thoroughbred O. I. C. pigs both sexes, at reasonable prices.

BULL CALVES out of Shorthorn Cows, by Angus Bull.

Several registered Angus bull and heifer calves.

4 L. Wyandotte Eggs, \$1 for 15.

Five Liewellyn Setter Pups of just right age to be broken in this fall; color tan and white; price \$5 each. W. M. WAT-

and white; price \$6 each.

Several fine family milk cows. W. M. WAT-

SON and SON, Saxo, Va.

LOOK HERE!

If you are hunting for bargains, here they are and offer stands until September 1st.

ONE REG. SHORTHORN COW due to drop her 4th calf Aug. 25th; price \$75.

ONE REG. SHORTHORN COW due to drop her 3rd calf Jan. 1st, 1907; price \$75.

ONE REG. POLAND-CHINA SOW.

due to farrow Oct. 5th; price \$40.

ONE HERD BOAR, 5 years old, \$50; some March and April pigs as good as the best, from \$12 to \$15 each, either sex; am selling to avoid inbreeding. A. J. S. DIEHL, Port Republic, Va.

Always mention **The Southern Planter** when writing to advertisers.

REGISTERED

Holstein-Friesian

Cattle; best butter producing strains; pure-bred **JERSEY CATTLE**, **CHESTER WHITE**, **BERKSHIRE**, **JERSEY RED HOGS**, and all the **LEADING BREEDS OF SHEEP**, also **DUCKS**, **POULTRY** and **TURKEYS**.

Write for my prices.

W. R. SELLECK, Huntington Harbor, L. I.

Swift Creek Stock and Dairy Farm

Has for sale a large number of nice young registered **A. J. C. C.**



JERSEY BULLS AND HEIFERS.

None better bred in the South. Combining closely the most noted and up-to-date blood in America. Bulls 4 to 6 months old, \$75. Heifers, same age, \$35. **POLAND CHINA PIGS**, \$6 each. Send check and get what you want.

T. P. BRASWELL, Prop., Battleboro, N. C.

ELLERSLIE FARM—

Thoroughbred Horses

AND SHORTHORN CATTLE, Pure Southdown Sheep and Berkshire Pigs.

FOR SALE, **R. J. HANCOCK & SON**,
CHARLOTTESVILLE, VA.

DEVON HERD, HAMPSHIREDOWN FLOCK
ESTABLISHED 1894. ESTABLISHED 1890.

DEVON CATTLE

BULLS and HEIFERS,

Hampshire Down Sheep,

RAMS and EWES.

ROBT. J. FARRER, Orange, Va.

ROSE DALE HERD....

Aberdeen Angus

Top notch young registered Bulls our specialty. A few heifers to offer with bull and skin. We send out none but good individuals. Correspondence and inspection of herd invited. **ROSE DALE STOCK FARMS** Jeffersonton, Va.

Tamworth Swine

All ages, for sale. Have some

FINE BOAR PIGS.

ready for service. **K. S. HAWK**, Mechanicsburg, O.

Walnut Hill Herd

Aberdeen Angus Cattle

Calves, 3 months old and up, for sale.

J. P. THOMPSON, Prop., Orange, Va.

Mention The Southern Planter.

ENQUIRER'S COLUMN.

REMOVING STUMPS.

I have thirty or forty acres of land that was cleared about four years ago, and now has twenty to twenty-five large stumps per acre. Kindly advise me the cheapest way to get them up. Would dynamite or a stump machine do the work, if so, how much dynamite would it require to blow them up; which is the best stump-puller to buy, hand or horse power?

2. Can I use an underground ice-house for a silo; also how should it be celled to make it water-tight?

BEGINNER.

Halifax Co., Va.

1. Dynamite is the best, quickest, and cheapest way to get rid of stumps where only a few have to be removed. Half a cartridge put well under a stump will blow it to pieces. Drive the hole well under the centre of the stump with a long crowbar and tamp the cartridge tightly down in the hole and it will have to go. Where many large and small stumps are to remove, a stump-puller is the proper thing to use. You will find two or three good ones advertised in this issue. There is little choice between them.

2. An underground ice-house can be used as a silo if it is well drained so as to keep out water. The sides should be boarded up vertically, first with rough boards and then with matched boards put on the opposite way. The objection to the use of an underground pit is the danger of getting out the silage.—Ed.

CIDER VINEGAR—CHINCH BUG—WEEVIL.

1. Will you please tell me in your next issue how to make good cider vinegar? I have about fifty gallons, made last summer and fall, but it does not seem to be strong enough. What does it need?

2. Can you tell me how to get rid of the "chinch bug," that damages the growing wheat and corn so much at this season?

3. Can you tell me how to prevent the destruction of grain ("old corn") by the weevil at this season of the year? By answering the above you will greatly oblige one who very much enjoys The Planter, each month.

W. E. ROBERTSON.

Henrico Co., Va.

1. Send to the Experiment Station, Blacksburg, for the Bulletin, they have issued on vinegar making. This will give you the fullest information on the subject, and much more than we can find space to do. It is also the latest work published on the subject, and gives the results of extensive and careful work done at Blacksburg.

2. We know of no means of destroying chinch bugs when once they have

WANT ADS.

Rate 2 cents per word. Cash with order. Initials and figures count as one word. 25 cents minimum charge.

WANTED—TO CORRESPOND WITH some one who wants a working partner, or who has a big farm to lease for a term of years, either on shares or for a yearly cash rental. **FRANK S. FARQUHAR**, North Yakima, Wash.

PRINTING FOR POULTRYMEN AND Farmers our specialty. Write us your wants. **Chonicle**, Rocky Mount, Va.

DORSETS AT FARMERS' PRICES. Yearling Bucks, \$12; Ewes, \$10; Buck Lambs, \$8; Ewe lambs, \$6. **LEWIS P. NELSON**, Jr., Box 123, Culpeper, Va.

HOLSTEIN-FRIESIAN CATTLE FOR SALE. Cows, yearlings, calves and Young Bulls of the most fashionable breeding. Choice English Berkshires, Barred Plymouth ROCKS. **Fassitt Bros.**, Sylmar, Md.

WANTED—A COMPETENT GARDENER and Diarman. Good position for one who can give satisfactory references. Address **Wendover**, Charlottesville, Va.

WANTED—TO TRADE FINE TREES, Shade, Ornamentals, Hedge plants or small fruits for good horse, Guernsey, Jersey, Red Poll Bull or Leghorn Chickens. **A. W. Wallis**, care of Franklin Davis Nursery Co., Baltimore, Md.

WANTED—TO TRADE OR SELL, A MAGNIFICENT Registered Duroc Jersey Boar. **Wm. G. Owens**, Midlotian, Va.

HAMPSHIREDOWN SHEEP, RAMS AND EWES; large Yorkshire pigs of the right kind at attractive prices. Write for circular. **J. D. Thomas**, Round Hill, Va.

SNOW WHITE PEKIN DUCKS AT \$1 EACH for a little while to reduce numbers. Usual price, \$2.50 to \$5. Our little flock of 21 birds made several hundred dollars for this season. **Thos. S. White**, Lexington, Va.

FOR SALE OR EXCHANGE, A WOLVERINE 4 horse sweep-power with jack and pulley; good as new. **F. E. Winkler**, Oedon, Caroline Co., Va.

FINE TRUCK FARM, 94 Acres (Hanover County), for sale. 2 miles from Station; will also sell Stock and Implements. For particulars, address **A. G. Quarles**, Atlas, Va.

WANTED—all farmers to write to **P. F. J. Wren**, P. O. 4, Disputants, Va., for lowest club rate on Southern Planter and Chattanooga Weekly Times.

FOR SALE—Desirable Small Dairy Farm earning \$100 per month, 10 minutes drive from Station on Southern Ry. near Washington. Box 40, Ashburn, Va.

WANTED—A GRADUATE OF A NORMAL Manual Training School in the middle South. Must be able to teach agriculture. Address **S. A.**, care of Southern Planter.

WANTED—MAN AND WIFE FOR FARM; wife to do light cooking. Address, **Thos. B. Scott**, B. Riverline, Va.

WANTED—YOUNG MAN TO HELP ON small farm, modern implements, experience not required. **O. D. Belding**, Claremont, Va.

WANTED—GOOD, CLEAN, INDUSTRIOUS white married man with small family to take charge of Cows, Poultry etc. Good new house with every convenience. Beautiful, healthful location near Blue Ridge Mountains. **Rosemont Farm**, Berryville, Va.

got into a crop. The crop should be plowed round with a deep furrow, which should be kept open to keep the bugs from getting into other crops. They will fall into the furrow and can be there killed by drawing a log through the furrow.

3. Weevils in old corn can be destroyed by placing carbon bisulphide in saucers on the top of the corn and covering it up closely in a box, barrel or bin. The fumes of the carbon will descend through the corn and kill every living thing in it. Carbon bisulphide should be handled with caution, with no lights about as it is very explosive.—Ed.

MANURE PRESERVATIVES.

Will the ground native phosphate of lime (floats) be as effective as sulphate of lime (plaster) in fixing ammonia gas arising from manure accumulating in covered buildings, well bedded, where cattle or sheep are being fed on corn or sorghum silage with liberal help of cotton-seed meal and what is the respective value of these salts in money, as chemical agents to fix ammonia, and as fertilizers? How much for a 1,000 pound steer per day would be required of these salts to stop all gas from escaping? Please explain the chemical reactions that would occur by the applications.

FOSTER CLARKE.

Blount Co., Tenn.

We do not think you will get any success from the use of "floats" in fixing the ammonia arising from the manure in the building. It is essential that the acid should be in a free or available condition for it to be in any way effectual in fixing the ammonia. As you are aware the phosphoric acid in the "floats" is in a very slowly available form. There seems to be great doubt amongst the scientists who have experimented on this subject of preserving manure, as to whether any material good is done by the use of any of the different preservatives which have been recommended. We have carefully looked up all the experiments made and reported for many years, and the conclusion reached is that the best means of preserving the value of the manure is to apply it directly to the land as made or to leave it trodden down compactly by the stock in the pen or stall. In either way very little of the manurial value is lost. Wherever it is piled up and turned over quick fermentation starts, and whatever preservative is used is only partially effective. If plaster or acid phosphate is used, about two pounds per head of steers is advised.—Ed.

MELONS—CANTALOUPE.

1. Will you kindly tell me just exactly how cantaloupes, water-melons and pumpkin vines should be pruned or trimmed to get best results, and if pruning does good?

THE GROVE FARM GURNSEYS.

First prize Herd at Timonium and Hagerstown, Md. Only places herd shown.

BULLS ONLY FOR SALE.

OUR BEST HIKES

Were unbeaten at Timonium and Hagerstown and York, Pa., only places shown in 1905.

PIGS, BOTH SEXES FOR SALE.
JAS. MCK. MERRYMAN, R. F. D., Cockeysville, Md. C. & P. Telephone and Telegraph, 431, Lutherville, Md.

GALLOWAYS.

All readers of this paper who are interested in this breed of cattle are invited to write me N. S. Hopkins, Gloucester, Va.

HOLSTEIN-FRIESIAN BULL

Sir Thomas Netherlands, for sale to avoid inbreeding, 10 years old. J. M. BOELLE & SONS, Redfield Stock & Dairy Farm, News Ferry, Va.

THE NUT NURSERY CO.

MONTICELLO, FLA.

J. F. JONES, Mgr. and Prop.

Growers of Choice Varieties (by budding and grafting) in the more important species of Nut bearing trees, which are of value to Planters in this Country.

Extensive propagators of the Improved Large, Paper and Soft shell varieties of Pecans.

Write for Catalogue.

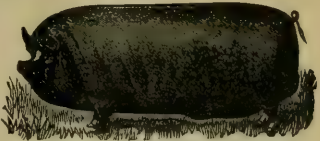
Red Poll Bull Calves.

Three choice ones now ready. Very best breeding. J. D. ARBUCKLE, Maxwellton, W. Va.

Fancy Berkshire Pigs

from directly imported sows and boars, practically imported blood for you at one-third usual price for such breeding; half imported and half American breeding at pocket-change prices—just a little money order—no bank account needed for these. Extra fine open and bred gilts

PEKIN DUCKS and EGGS for sale. S. C. Brown Leghorn eggs cheap. Barred Plymouth Rock eggs cheap. Absolutely pure—all of them. Thomas S. White,



Sir John Bull.

Fassifern Stock and Poultry Farm,

Lexington, Va.

ENGLISH AND AMERICAN BRED

Registered Berkshires.

Ages 3 months to 1 year; prices \$20, \$25, \$30, \$35, to \$40 each, depending on breeding and age.

1 Boar by Imported Loyal Master; Dam, Imported Danesfield Vain Maid.

4 Boars by Imported King Hunter; Dam, Berks Pansy of Biltmore.

4 Boars by Dorset Lee of Biltmore; Dam, Imported Danesfield Vain Maid.

1 Boar by Dorset Lee of Biltmore; Dam, Berks Pansy of Biltmore.

1 Boar by King Chimes; Dam, Toppers First of Kenilworth.

1 Boar by Dorset Lee of Biltmore; Dam, Topper of Biltmore.

Also a number of Boars by Imported Royal Carlyle, who won first at the Royal Show of England over all classes, and the highest priced six months old pig ever sold.

For Descriptions and prices, write EDGAR B. MOORE, Biltmore, N. C.

The Grove Stock Farm

Holstein Friesian Cattle.

Berkshire Hogs.

Barred Plymouth Rock Cockerels.

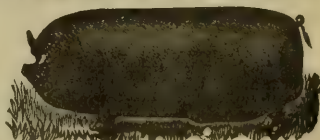
GOOD STOCK AT REASONABLE PRICES.

I have recently added to my Berkshire Herd the Imported Boar, GLENBURN CATCH, 84794. You are sure to want some of his get.

N. & W. and So Ry.

T. O. SANDY, Prop. Burkeville, Va.

When corresponding with our ad vertisers, always mention The Southern Planter.



BREEDING EWES. STOCK SHEEP.

I am receiving fresh consignments of
BREEDING EWES and FEEDING LAMBS and WETHERS
every day from now till October or November.

If you want a choice selection, send your orders in early.
If you want early lambs, now is the time to buy your *Breeding Ewes*.
The quality of my sheep this year was never better and I have them
at all prices.

Send for descriptive Catalog and Price List. I can please you on any

thing you may order. I sell on time to responsible parties if they desire. Write for terms. Address

P. O. Box 204.
Office Phone 993.
Residence Phone 5069.
Telegraph Address, Union Stock Yards.

ROBERT C. BRAUER,
Commission Salesman of
Cattle, Hogs, Sheep, Lambs and Calves.
Union Stock Yard, Richmond, Va.

2. My vines (cantaloupes) are in full bloom, and are from six to eighteen inches long; do you think it would be any advantage or disadvantage to the vines or fruit to let the weeds grow up around them and cover them over, or nearly over.

JOHN L. MORRIS.

Loudoun Co., Va.

1. Canteloupes should have the bud pinched out of the main vine to make it throw out laterals on which the fruit is borne. Melons and pumpkins should not be pruned, as they bear the fruit on the main vines.

2. Keep down all the weeds but do not disturb the vines in order to do this. Cultivate as long as you can without disturbing the vines, and then pull out the weeds. If melons are planted in an exposed situation it is advisable either to plant a few peas or beans in them for them to fasten on to, to prevent the vines being blown about by the winds.—Ed.

SOY BEANS.

Kindly let me know how late you can sow Soy Beans for forage, also in what stage do you cut for forage. Can you mow at a time to save the bean for seed, and at the same time the cured vine will make good wholesome feed for horses and cattle?

E. L. LEE.

Soy beans have a long period of growth and should not therefore be sowed later than June, and better in May if its desired to save the beans. For forage they may be sowed in June and July and be cut when in full growth and full of leaf. At this time the pods will have commenced to form and fill with the beans, but few of them will be sufficiently matured to make seed. The pods will continue to form and fill right up to the first frost after which they will ripen up. Much of the leaf is lost if the crop is allowed to complete its growth and make seed, but stock of all kinds will eat the stalks when cured whether cut early or late and they make nutriti-

FOREST HOME FARM

Offers For Sale

Berkshire Boars

as follows:

- 2 Yearling Boars from Imported Animals.
- 1, 10 Months Old Boar. FINE.
- 6, 8 Months Old Boar Pigs.

Also a large number of pigs of both sexes. Write

FOREST HOME FARM

PURCELLVILLE, VIRGINIA.



WE ARE STILL IN THE BUSINESS

"HILL TOP" STOCK at Shadwell, Va

Southdown and Shropshire Sheep, Berkshire Hogs,
B. B. R. Game Chickens, Fox Hound Puppies.

We now have very few Berkshire pigs, but what we have are the right kind. Have only a limited number of sheep for sale, but some of these are fine bucks ready for service.

Our hounds are pure Walker strain. They have plenty of speed as well as the staying qualities and are FINE HUNTERS..

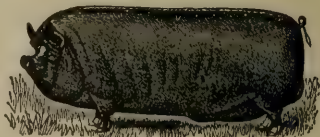
We have won more premiums on sheep and hogs at State and County Fairs, than all other breeders in Virginia, combined.

H. A. S. HAMILTON & SONS, Shadwell, Va.

VALLEY COTTAGE FARM

BERKSHIRES

Extra choice pigs at low figures for the summer. Baltimore and other imported blood. Herd headed by 2 Royal Boars C. S. TOWNLEY, The Hogman, Red Hill, Va.



BERKSHIRE HOGS.

BEST ENGLISH AND AMERICAN STRAIN -
YOUNG STOCK AT REASONABLE PRICES.

EDWARD G. BUTLER, "Annefield Farms,"
BERRYVILLE, - - - VIRGINIA.

POLAND CHINAS and SHROPSHIRE



A choice lot of pigs sired by my fine Boars, D's Corrector 98157 and Big Jumbo 64275. D's Corrector is a half brother to the senior Champion Boar at St. Louis World's Fair. Half interest in his sire sold for \$2,500 and his dam is a full sister to Maple Lawn Chief, first in aged class at St. Louis. Big Jumbo was bred by W. Powell, of Kansas, and sired by the 1100 lb. hog, Perfect I Am, 50767 and out of the 700 lb. sow, Lady P. Sanders, 79040.

SHROPSHIRE RAMS. A Choice Lot,

Sired by my fine ram, Ingersoll, 774. I bought this ram of the Niagara Stock Farm, N. Y., and having used him 2 years, will sell to avoid inbreeding. All stock shipped subject to being returned at my expense if not satisfactory.



J. F. CURRETTE, Birdwood, Albemarle Co., Va.

ous feed. When put late they are tough and woody but cattle seem fond of them even then.—Ed.

GRASS FOR NAME.

Enclosed find stalk and head of grass which I find growing in my meadow this spring. Will you please tell me what it is? A. H. JOHNSON. Jackson county, Tenn.

Tall Meadow Oat Grass a highly nutritious and productive grass which should always form part of any mixture of grass seeds intended for laying down a meadow.—Ed.

COW LOSING MILK—LUMP JAW.

I have a cow that loses her milk between milking times, i. e., it drips from her teats, what can be done to prevent it?

What causes lump jaw in cattle and eye treatment. Is it contagious to man or beast, and how communicated?

SUBSCRIBER.

Charlotte county, Va.

There is no effectual remedy for stopping the loss of milk from the teats. The only course is to milk the cow three times a day instead of twice and thus prevent the overfilling of the udder. It does not often occur except when the udder is very full.

Lumpy jaw is a fungoid disease of which the animals become infected from the food upon which the fungus is lodged. It also becomes inoculated into the jaws through diseased wounds in the skin. The mere presence of a diseased animal will not give rise to the disease in healthy animals unless they are directly inoculated with the diseased pus through the skin or through the food. It is not believed that it is directly communicated to man from cattle though the disease affects the human race in some sections. It is believed that it attacks man from a third source and not directly from cattle. Iodide of potassium is a certain remedy for the disease. It is given in full doses of from one to one and a half drams once or twice a day until improvement is no-

Large Yorkshires

The Tidewater Railway is taking a portion of our best farming land and we must reduce our breeding operations, and have decided to offer a portion of our

Imported Boars and Sows,

besides a number of weanling pigs. This presents a rare opportunity to secure great foundation animals of this great breed. PRICES LOW. Address BOWMONT FARMS, Salem, Va.

Reg. Poland Chinas

When buying breeders or foundation stock, it pays to be sure that you are buying from prolific strains. There's where your profit comes in. That's the kind we boast of. Prolific, large, growthy and easy fleshers and at almost pork prices. Let us quote you. T. M. BYRD, R. F. D. 3, Salisbury, N. C.



POLAND CHINA, TAMWORTH, BERKSHIRE

Pigs at Farmer's prices. Also Bred Sows and Service Boars. All stock entitled to registry and satisfaction guaranteed.

APPLY TO

J. C. GRAVES, Barboursville, Orange Co., Va

DUROC-JERSEYS

are at the top and there to stay. Write us and we will give you some hog facts that will convince you.

We have the blood of ORION, OHIO CHIEF (recently sold for \$2,000.00), SENSATION, SURE WINNER, TOPNOTCHER, PROTECTION, KANT-BE-BEAT, LONGFELLOW, WASHINGTON KING, GO-FORWARD, FAYETTE CHIEF, and HIGH CHIEF, besides a string of others of the leading Western winning strains, THE VERY CREAM OF DUROC-JERSEY BREEDING. Our prices are low and the quality is high. We can save you money in the purchase price and in expressage. Write at once and we will give you some DUROC FACTS.

LESLIE D. KLINE, Vaucluse, Va.

GLENBURN BERKSHIRES

Pigs out of splendid IMPORTED and American sows, and by grand IMPORTED boars, including LOYAL HUNTER, the largest and best boar ever imported into this country. These represent the best herds and greatest winners of England and America. Have recently added to our herd, two splendid daughters of LORD PREMIER in pig by PRE-NATION Sows in pig by the great MASTERPIECE, the highest priced boar of the breed. A. J. C. C. Jersey cows, bulls and helters for sale. Mention this paper.

J. D. KIRK, Roanoke, Va.

BERKSHIRES

of the most fashionable English strain. A nice lot of pigs for sale. Prices reasonable. Correspondence solicited. COL. HENRY HOLLYDAY, EASTON, Md.

ticed when the dose may be reduced, and given less frequently.—Ed.

BLUE GRASS.

1. I have a small piece of land (30 feet square) which I wish to get in a nice bluegrass sod, and I would like for you to tell me the very best way to do this. The land at present has only a little timothy on it. It is high and well drained, and the soil consists principally of red clay, which is full of small gravel.

2. When is the best time to sow and how much per acre to insure a good sod?

3. What soil is best suited for bluegrass?

4. About how long does it usually take to get a good bluegrass sod?

Leesburg, Va. J. L. M.

Unless you are on limestone land you will find it very slow business to secure a Kentucky bluegrass sod. The Virginia or Canada bluegrass will grow on freestone land, and is in our opinion quite as nice as a sod, and certainly quite as good as a pasture as the Kentucky bluegrass. You should be guided in the variety selected for seeding by the character of the land on which it is to be sown. Plow the land deeply at once, and break and work it fine. Apply lime at the rate of 25 to 50 bushels to the acre, and work in and let lay until weeds have germinated. Then harrow and kill these. If you have good, well-rotted farmyard manure apply a heavy dressing to the land and supplement this with some bone meal, say 300 pounds to the acre and work into the land, and then sow the grass seed at the rate of 3 or 4 bushels to the acre. Harrow in lightly and roll. August and September are the best months in which to sow the grass.—Ed.

GRASS SEEDING.

I wish to sow following grasses on 10 acres of wet bottom land for hay, (will probably want to graze it a little), and want to know what proportion of each to sow—tall meadow oat, herds, orchard, Va. Blue, meadow fescue clover.

2. I have 10 acres red clay upland I wish to seed the grass for hay, but to graze some; how much of each and what kinds to sow

3. I also have 3 acres red clay upland to sow for early spring and late fall grazing; what kinds and how much to sow?

4. I notice several kinds of grass seed sowers on the market; are they practical, and what kind would you recommend? I usually sow about 20 acres each year of grass and clover.

Pittsylvania Co. O. H.

1. On land such as you describe we would sow only Herds grass. No other grass will succeed well on wet land, but Herds grass will make a great growth, and can be pastured as well



SHEEP, HOGS, AND POULTRY.

Special Offerings for July.

CHOICE REGISTERED

SHROPSHIRE and SOUTHDOWN

SERVICE RAMS AND BRED EWES.

Lambs of both Breeds and all of the best Imported Strains. Now is the time to order your Ram for Service this Fall.

Four Grand September 1905 BERKSHIRE BOARS, weight over 250 lbs. Price \$32.00 each. Younger Boars, Bred Sows and Pigs, 2, 3, and 4 months old. Fine Service Boars, Bred Sows, and Pigs all ages of Chester White and Poland Chinas.

Some Grand Pekin Ducks mated from the best strains, \$2.50 each. Now is the time to order your birds for next season.

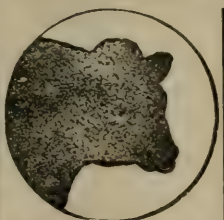
Choice matings of Plymouth Rocks, Wyandottes, R. I. Reds, Buff Orpingtons, Buff, White and Brown Leghorns, Minorcas and others. Fancy lot of Brown Leghorn prize winners. Write for prices. Eggs for hatching, 300 pair Homer Pigeons, a grand lot of birds. \$2.00 per pair in lots of five or more pairs. Address,

JAMES M. HOBBS, 1521 Mount Royal Avenue, Baltimore, Md.

SUNNY HOME HERD —OF— Aberdeen Angus Cattle.

The two bulls at the head of this herd (Baron Roseboy 57666 and Jester 60071), are as well bred as any in America. Baron Roseboy is a grandson on both sire and dam's side of Heather Lad 2nd, the greatest stock bull of the Angus breed ever in America. Jester is a grandson on sire's side of Equestrian, the greatest bull Scotland has produced in many a day. Jester's dam Jilt 12th, is the best female in the great "Grandview" herd and is a granddaughter of the famous Bushman—by Young Viscount—and a great granddaughter of Paris 1166, the bull who turned the eyes of the stock growing world toward the Angus breed at the Paris Exposition. Well sold sons of these two great bulls at prices within the reach of every stockman. Write Farm at Fitzgerald, N. C.

A. L. FRENCH, Prop.
R. F. D. Byrdville, Va.



The Delaware Herd of

ROYAL ANGUS CATTLE

is not surpassed either in breeding or individual animals by any herd in the East. At the head of our herd is

PRINCE BARBARA, 68604,

the son of the great \$9,000 Prince 110. Females of equally choice breeding. Write your wants. Remember, we take personal care of our cattle; keep no high priced help; incur no expense of exhibiting; all of which enables us to offer stock at equitable prices. Send for pamphlet. 15 Bulls from 2 to 15 months old for sale.

MYER & SON, Prop.

Bridgeville, Del.

EVERGREEN FARMS

I am offering a choice high-bred

REGISTERED JERSEY HEIFER.

bred to by pure St. Lambert Bull, Rincora's Rioter of St. L., H. R. 69,478.

Sons of this bull from grand cows, for sale.

W. B. Gates, Prop.

Rice Dep. Prince Edward Co., Va.

PALMETTO FARMS.

Red Polled Cattle. Berkshire Hogs. Angora Goats.

We are offering 2-year-old Red Polled Bulls, of superior beef form, from heavy milking dams. Combine beef with milk and secure a double profit. Fine individuals, of fancy breeding. Red Polls are hornless. We are pricing them low to make quick sale. ANGORA BUCKS for Sale; nothing to offer in Berkshires before fall.

PALMETTO FARMS, Aiken, S. C.

Save 20% to 50 %
By buying a

DAVIS Separator

Factory prices. No middlemen's profits. Investigate our fair selling plan.

It's the low-down separator (just belt high) that has a three-piece bowl that can never get out of balance. In all the separator world there is nothing to equal the Davis for convenience, for nice, close skimming, for easy running and easy cleaning. Don't buy without having our money-saving Catalog No. 124. It's free. Write for it to-day.

Davis Cream Separator Co.,
838 North Clinton Street,
CHICAGO, ILLINOIS.



as mowed. It is a good hay grass. Sow 2 bushels to the acre. If you decide to risk some of the other varieties named, sow one bushel of Herds and the other bushel make up of equal parts of the other grasses with ten pounds of clover seed.

2. Sow all the grasses named on the upland at the rate of 2 or 3 bushels to the acre, mixed in equal parts with 5 pounds of red clover seed and 5 pounds of Alsike clover seed per acre.

3. Sow a mixture of crimson clover 10 pounds to the acre and 3 pecks of wheat, winter oats and rye, in equal parts.

4. There are two grass seed sowers on the market which do good work—the Wheelbarrow and the Cahoon. Either will give satisfaction.—Ed.

CLOVER CROP—ONION FERTILIZER—PEACHES ROTTING—POTATO SCAB—JERSEY COWS.

1. I have a clover field from which I have taken a crop of hay. Now what is best for me to do—to cut the second crop for hay, or pasture it down, or leave it as a cover crop? If I can't do the best thing, what is the next best?

2. If I have stable manure enough for my onions, is there any need for another fertilizer? If so, what and how much?

3. I have a fine peachtree; it looks thrifty and grows well; the peaches begin to turn red like they are ripening in June, but before they are ripe they rot on the tree and never, only a few, come to maturity. What is the cause and remedy?

4. What is the cause of potato scab, and what the remedy?

5. What are the distinguishing characteristics between the Jersey and Alderney cows?

6. Can you give me a remedy for lice and mites on poultry?

7. Can you give a good recipe to make grape wine for invalids without the use of alcohol?

C. W. FARRAR.

Putnam Co., W. Va.

1. We always prefer to pasture the second crop of clover unless it is very heavy, when pasturing means the wasting of much of it. By pasturing it the fertility is kept on the land and the stand of grass and clover is thickened.

2. With an abundance of stable manure there is no necessity to purchase fertilizers for making an onion crop. The onion crop calls for rich land and is one of the few crops that can be successfully grown year after year on the same land, if it is only kept rich and full of humus. Stable manure will supply these requirements if used liberally.

3. Your peachtree is infected with the rot, a fungoid disease, which reproduces itself each year from the diseased fruit of the previous year. The remedy is to destroy all diseased fruit and spray with Bordeaux mix-

Hygeia Farm Holsteins.

The Finest Herd of Registered Holsteins in the Southern States
COWS—THE JESSIE VEEMAN FAMILY

headed by that grand individual, JESSIE VEEMAN A., and including seven of her daughters justly comes first.

JESSIE VEEMAN A. is admitted by the best judges to be one of the finest types of the Holstein cow, both in conformation and productive ability. Many honors of the show ring have fallen at the feet of this "Bovine Queen." In 1903 at the New York State Fair, she was adjudged CHAMPION COW. Official record 25.25 lb. butter in 7 days with an average milk production of over 83 lb.

JESSIE VEEMAN C., the oldest daughter, closely resembles her mother in outward conformation. She carried off the highest honors at the New York State Fair in 1905, against strong competition. She has just completed a record of 20.4 lb. butter in 7 days.

JESSIE VEEMAN HENGVERVELD. This is one of the greatest producers of this wonderful family. At 3 years old, she produced 16.8; at 4 years, 20.33; and at 6 years, she produced 21.4 lb. of butter in 7 days, the last record being made in very hot weather and under unfavorable circumstances.

The other five daughters are individuals of the highest merit, both in daily conformation and in individual excellence.

FRONTIER JESSIE VEEMAN, 19.4; JESSIE VEEMAN DIONE, 14.98; BERYL JESSIE VEEMAN A., (at 2 years), 9.68; JESSIE VEEMAN A. 2D (at 2 years), 14.49; JESSIE VEEMAN DE KOL (Untested).

JOE BACH JOSEPHINE

another famous member of the herd, is one of the five cows that won the "dual purpose test" at St. Louis in 1904. Her A. R. O. Record is 23.83 lbs. butter in 7 days.

HULDA ABBEKERK DE KOL, granddaughter of DE KOL 2ND, has just completed a record of 19.87 lb.

SCOTIA 4TH, A. R. O. Record, 20.13 lbs. butter in 7 days.

NETHERLAND FANCY ROSETTA, A. R. O. Record, 20.37 lbs. butter in 7 days.

COUNTRESS DORINDA DE KOL, A. R. O. Record, 20.37 lbs. butter in 7 days.

PRINCESS KORNDYKE DE KOL. This is a very fine individual whose breeding shows a combination of the blood of DE KOL 2ND, BELLE KORNDYKE, JESSIE BEETS, and NETHERLAND HENGVERVELD. The average official record of two of her nearest dams is 24.43 lbs. butter in 7 days.

AALTJE DE KOL, 17.33; Shadeland Dulcibel 4th, 16.427; ANZALETTA PAULINE PAUL 2D (at 2 years), 10.143; MANOR GRACE PIETERTJE (at 1 year, 9 months), 9.16; DAISY PEOPLES, 19.48; LADY OF BURTON AAGGIE, 10.79; LADY OF HILLSIDE (Untested).

BULLS.—PONTIAC CALYPSO'S SON.

This is one of the finest of the "IMPERIAL PONTIACS," partaking at once of the individual excellence, both in conformation and production, of his two wonderful grand-sires, HENGVERVELD DE KOL, and DE KOL 2ND'S PAUL DE KOL. His dam, PONTIAC CALYPSO, is one of the greatest producers of the daughters of HENGVERVELD DE KOL. As a 3-year-old, she produced, during the hottest weather of July, 23.5 lb. of butter in 7 days. She is one of the ten daughters of HENGVERVELD DE KOL who with first calf produced an average of 17.75 lb. butter in 7 days. Another half-sister has a record of 28.41.

His sire, BERYL WAYNE'S PAUL DE KOL, has over 40 A. R. O. sisters, one of which is AAGGIE CORNUCOPIA PAULINE, the WORLD'S CHAMPION COW (34.31). He is the sire also of SHADYBROOK GERBEN PARTHENEIA 4TH, who holds the world's record for production under 2 years old, having produced at 1 year, 8 months, in 7 days, 17.86 lb. butter. The three nearest dams of this young bull have records averaging practically 26 lbs.

KING ORMSBY FRIEND

This bull is an individual of exceptionally good conformation, fine enough to show in any company, and good enough to be at the head of any herd. His dam, PAULINE DE KOL MUTUAL FRIEND, produced under 2 years old, in an official test, 16.22 lb. of butter in 7 days; and again, as a 3-year-old, has placed to her credit 19.55 lb. She was from DE KOL KONINGEN PAULINE, (23.301), and sired by the youngest son of DE KOL 2D, DE KOL 2D'S MUTUAL PAUL, the youngest bull of the breed having a 23 lb. daughter. KING ORMSBY FRIEND was sired by DUCHESS ORMSBY BUTTER KING. His dam, DUCHESS ORMSBY, made an official record of 24 lb. 4.4 oz., her milk showing 5.44 per cent. of fat.

For the purpose of introducing Holstein blood into the South and proving the profit of grading up our herds, this bull will serve a limited number of pure-bred cows of any breed and good grade cows for \$3 each. Arrangements can be made by mail.

I am prepared to furnish the best pure bred Holstein-Friesian cattle from a single calf to car load lots, every animal guaranteed as represented.

For further information come to Hygeia Farm and receive a cordial welcome, or write

SAMUEL ADAMS ROBINSON, M. D., Prop.

COVESVILLE, Albemarle County, Virginia.



Annual Reduction Sale of Pure-Bred Poultry.

It is our custom each year in August to offer a large lot of breeders of the previous season also several hundred head of young stock.

BARRED, WHITE and BUFF PLYMOUTH ROCKS: a limited number of our extra select stock bred from the "RINGLETS" "FISHEL" and "NUGGET" strains. Trios, two hens and cock at \$7.50. Pair \$5. Single birds \$3.

200 Barred Rock hens, yearling, for immediate sale at \$15 per dozen. I have many others, in fact, I can furnish the needs of almost anyone. We have about 150 hens we will sell for \$12 per dozen. We have the same offerings in White and Buff hens all the way from \$1.50 each to \$3 per head.

200 S. C. WHITE LEGHORNS (WYCKOFF), (yearlings), at from \$12 to \$24 per dozen. March, April and May hatched pullets of the above breeds and many others from \$10 to \$24 per dozen.

150 S. C. Brown Leghorn hens one year old from \$12 to \$24 per dozen. March, April and May hatched pullets from \$10 to \$24 per dozen. We can sell you high class Rhode Island Reds hens and cocks; White Wyandottes, Golden Wyandottes, Light Brahmas, S. C. Black Minorcas. We will sell you from a single bird to a thousand head of any of the above breeds; will sell them to you for cash or time payments. Pay for them as they pay you. Order now, don't delay. Correspondence solicited. Every bird guaranteed just as represented and reference furnished. Address all communications to J. HARRISON YATES, DEPT P, CHANTILLY, VIRGINIA.

ture in the early spring and later with the copper carbonate mixture. See Spray Calendar in the March issue.

4. The scab is a funoid growth on the tubers, and is usually perpetuated from year to year by the use of farmyard manure infected with disease spores in the production of the crop and by the planting of scabby potatoes. The best way to get rid of it is to use no farmyard manure for the production of the crop, but to rely on chemical fertilizers and to soak all seed potatoes in corrosive sublimate solution before planting. This kills the scab germs.

5. There is no breed of cattle known officially as Alderneys. The proper name of the cattle often locally called Alderneys, is Jersey. When the Jersey cattle were first imported from the Islands they were called Alderneys, Alderney being one of the Channel Islands. Alderney, however, is a very small island and produces very few cows. The Island of Jersey is the largest island in the group, and produces nearly all the Jersey cattle imported. Guernsey is another island of the group and produces and exports the Guernsey cattle which are of the same type as the Jerseys, but larger.

6. Use insect powder on the birds. This powder is technically known as Buhach or Pyrethrum powder. Use on the roosts and in the house kerosene emulsion or kerosene alone.

7. We are not familiar with the method adopted in making grape wine free from alcohol. We believe that the fermentation is stopped in some way at a certain stage of the making. Perhaps some of our subscribers can supply this information. If so, we shall be glad to publish it.—Ed.

GRASS FOR NAME.

I send you herewith seed head and blade of a grass, the name of which I have forgotten. Over forty years ago my father sowed the seed on a portion of a field, and it has been making its appearance in the fence corners every year since then. I remem-

Jersey, Guernsey and Red Polled Cattle

FOR SALE.—A few extra good bulls and heifer calves now ready.

Berkshire Pigs

ready for immediate delivery.

Beautiful Fox Terrier Puppies—great ratters.

M. B. ROWE & CO., - Fredericksburg, Virginia.



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INGLESIDE HEREFORDS

Owned by S. W. Anderson, Blaker Mills, Greenbrier county, W. Va.

A choice lot of BULLS, COWS, and HEIFERS for sale. Also a few POLLED HEREFORD BULLS recorded in the National Polled Hereford Records. Write for catalogue and prices. Farm near Alderson, W. Va., on the C. & O. R. E. Telegraph and Telephone office, Alderson W. Va.

HEREFORD CATTLE.

HIGH CLASS HERD.

Prices Very Reasonable.

EDWARD G. BUTLER, "Annefield Farms,"
BERRYVILLE, - - - VIRGINIA.

WHITMAN'S "WORLD'S"
LARGEST & MOST PERFECT
GUARANTEED TO
ALSO LARGE LINE FIRST CLASS
SEND FOR
WHITMAN AGRI. CO.

"STANDARD" BALING PRESSES
LINE IN AMERICA.
HAVE NO EQUAL
AGRICULTURAL MACHINERY
CATALOGUE
ST. LOUIS, MO.

Received the GRAND PRIZE, highest award, on Belt and Horse Presses, World's Fair, St. Louis.

ber it came very early and grew till late in the fall. It grows to the height of three and four feet.

SAMUEL FORRER.

The grass is Tall Out Grass. It is a valuable nutritious grass and makes excellent hay. We have had no experience in growing it for seed, but as there is regular sale for the seed presume that it would be profitable to raise for that purpose, where conditions were suitable.—Ed.

TWIG BLIGHT OF THE APPLE.

What is the cause of twig blight and what is the remedy? M. L. McCUE. Albemarle Co., Va.

This disease is the same as the fire blight on the pear. It is less virulent in its effects on the apple, as it rarely extends beyond the twigs of the trees. There is no positive remedy for the trouble, but top dressing the orchard with potash and phosphate seems to check it.—See article in this issue on the subject of Fire Blight.—Ed.

POISONOUS WEED.

Will you give me what information you can about a weed known as St. Johns? It seems to poison horses that have white feet, or with a little white on them, and is limited to the extent of the white hair. It poisons them when it is fed to them in the winter or is thrown into the stable, and also when they are running in pasture. We had several cases last year and some of them very serious. If you can give us a good remedy, please oblige, F. S. THOMAS. Tennessee.

As we were not familiar with the poisonous weed you enquire about, we wrote the Bureau of Plant Industry, Department of Agriculture, on the subject, and in reply have received the following letter:

In reply to your letter of July 19 I would say that public attention was called to poisoning by *Hypericum perforatum*, or St. Johns Wort, in the report of the Commissioner of Agriculture for 1865, p. 510, in which he says that cutaneous ulcers are supposed to occur in "white cows and on horses with white feet and noses." Our records show that mules are also likewise affected. This office has a certain number of records of cases of supposed poisoning in animals by this plant. I question whether this trouble is confined to white animals, but am inclined to believe that the cutaneous lesions are more apt to be noticed in white animals than in dark color ones. None of us here have any personal experience with this form of poisoning. The only published account that I know of is that of Panzou, Rep. d. Thierheilk. Jahrg. 22, 1861, p. 200, in which the following symptoms were noted: Tottering gait,

TULEYRIES FARM

STOCK FOR SALE.

100 PURE-BRED HEREFORDS

ALL AGES.

Sires: Acrobat 68460, Christmas Beau Donald 183891.

Including 10 Acrobat Heifers and 10 Bull Calves.

Acrobat Heifers have sold for \$3,700 each in Kansas City.

100 PURE-BRED BERKSHIRES

ALL AGES.

Boars: Gedney Farm Premier 83552.

Sired by Judge Columbus 68145.

Dam Model Girl 78838

and

Loyal Longfellow of Biltmore 81300.

FIRST COMERS GET FIRST CHOICE.

If all not sold before October, come to my big

AUCTION SALE

—AT—

Hagerstown, Maryland, in October

GRAHAM F. BLANDY,

White Post, Clarke Co., Va.



YOUR WATER PROBLEM SOLVED.

You don't want to be always looking after it or repairing. But you want water always coming. Use the running stream and a

Rife Hydraulic Ram

and you can raise it any height. Cheapest and most satisfactory means of fresh water supply known. No care needed, always going, no repairs. **Sold on 30 Days Free Trial.** Send for book and investigate.

Rife Engine Co., 2113 Trinity Bldg., New York.

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HIGHLAND STOCK FARM

Breeds a full line of pure bred stock for the Farm.

I can now furnish SOME CHOICE

POLAND-CHINA PIGS

by Master Sunshine 2nd. also some nice gilts safe in pig to Meddlesome, who is a son of the World's Fair Champion at St. Louis. All stock shipped subject to being returned at my expense if not satisfactory.

HENRY S. BOWEN, Witten's Mills, Tazewell Co., Va.



dullness of the animal, swinging of the head, enlargement of the pupils, injection of the conjunctivae and purple discoloration of the lips. In Wallace's Tropical Nature, 1878, p. 265, you will find a discussion as to the relation of color in animals to poisoning. It is there claimed that white sheep are killed by eating *hypericum crispum*, while black ones escape. This plant causes inflammation of the skin and death by convulsions. The only treatment that I would suggest would be purely symptomatic. The use of saline purgatives, such as epsom salts and local application of salicylic ointment, which relieves the cutaneous irritation.

Yours very truly,
ALBERT C. CRAWFORD,
Pharmacologist.

PLANT FOR NAME—SHINNEY COW PEA.

I enclose part of a flower spike of the plant known through this section as Blue Thistle. From your answers to correspondents during the past 12 months I gather that you think they referred to the Canada Thistle, but this is the one they meant.

The Shinney cow pea, also inquired about occasionally, is the Whippoorwill. It is a favorite pea for hay in the Lower Rappahannock river section, and is also known as hay pea.

A READER.

The proper name of the so-called Blue Thistle is Vipers Buglass or Blue Weed. It is not a thistle. We are obliged for the information as to the true name of the 'Shinney Cow Pea'. The local names of the various cow peas were very confusing.—Ed.

PAINT FOR WOUNDS IN TREES.

Would you kindly, through your valuable columns, advise me as to what preparation I should use to paint the places on the trunk of an oak tree, from which the branches have been sawed? I have noticed a number of oak trees painted with some black stuff where their limbs had been cut off; this was evidently done for the purpose of preserving them.

"A NEW SUBSCRIBER."

MONTVIEW JERSEYS.

We have for sale, at reasonable prices, Bull calves sired by our prize-winning Imported Marett's Flying Fox and also one masculine son of the famous Forfarshire

MONTVIEW BERKSHIRES.

MANOR FAITHFUL, pronounced by Geo. F. Weston, Superintendent of Biltmore Farms, THE BEST BOAR HE COULD FIND IN ENGLAND sold for \$615, and weighed 1100 pound—in show condition. We have now pigs by this great boar out of splendidly bred sows. Only a limited number will be sold.

We also have a fine litter from an imported sow by BARON PREMIER 3rd, the boar that was first prize-winner in his class at the St. Louis Exposition.

Montview Farms,

CARTER GLASS, Owner.

C. L. STAHL, Manager,

Box 513, Lynchburg, Va.

Jerseys and Berkshires

AT BILTMORE FARMS, BILTMORE, N. C.

Where they are bred right and made right and
YOU CAN GET THEM AT REASONABLE PRICES.
Now is the time to buy while we are in the notion to sell a few good ones at attractive prices.

DON'T MISS THIS OPPORTUNITY.

If you want a good bull, a good heifer, write us.
If you want choice Berkshires with size, finish, and early maturing qualities from the most prolific families of prize winning stock, write us.

Address

BILTMORE FARMS,
R. F. D. No 2, Biltmore, N. C.



SPANGLER LOW DOWN GRAIN DRILL AND FERTILIZER

is superior to other drills. It is light in weight and draft; has high wheels, 1 and tire, a low steel frame; sows grain or fertilizer evenly, cuts up clods and hills. Being low in frame, it is easy to land and does not obstruct the driver's view. Has no cogs nor side gear to break. Farmers can make no mistake when they buy a Spangler Drill, because each drill is guaranteed to give satisfaction in every respect. Write for free catalogue, which will tell you more about this great drill.

SPANGLER MFG. CO., 504 Queen Street, York, Pa.

White lead paint is the best to apply to the cut surfaces of trees, as it lasts longer than any other and resists the water. The black substance used is probably tar or pitch.—Ed.

GRASS FOR NAME.

Please give name of grass enclosed; volunteer growth in my orchard grass. Franklin Co., Va. T. T. BURTON.

The grass is Velvet Grass. It is of very little nutritive value and stock do not usually care for it. It usually grows on wet land.—Ed.

GRASS FOR NAME.

I enclose a sample of grass which I desire you to examine and inform me what it is. I bought the seed for timothy; but if it is timothy, it is a variety with which I am not acquainted. I sowed it May 10th and it is at least three feet high and I shall cut it this week. Please tell me if it is an annual grass or otherwise, and if I should be careful in feeding it. Horses eat it all right.

W. M. HUDSON.

Halifax Co., Va.

The grass sent is Wild Foxtail Grass. If any seedsman sold this for timothy he ought to be prosecuted. It is a worthless grass, having very little nutritive value. It is found in most of our land, and if you have got such a good stand of it as to make a full crop, either your field must have been badly infested with it or the timothy seed you bought was badly adulterated with it and the timothy failed to germinate, and the worthless stuff took full possession of the land.—Ed.

GRASS FOR NAME.

I herewith enclose a specimen of grass, which you will please identify. The grass was cut and cured about the 20th of June. The enclosed is the second growth. SUBSCRIBER.

Nelson Co., Va.

The grass is Johnson Grass. You will see several articles on this grass in the Planter. Some call it a great acquisition; others do not.—Ed.

OXEYE DAISY.

Will you please let me know if it will kill the roots of the enclosed plant to turn the land over with a turning plow?

MADISON RUSSELL.

The plant sent is Oxeye Daisy. Nothing but clean cultivation of the land in hoed crops for two or three years will kill out this pest.—Ed.

SEED FOR NAME.

1. Please name the enclosed seed.
2. Where can I get them to plant?

A Good Thing Never Dies

—HENCE—

Dr. Jos. Haas' Hog Remedy Still Lives

For 30 YEARS Dr. Jos. Haas' Hog Remedy has been tested without failing and is conceded to be the BEST HOG REMEDY ON EARTH.

The old and reliable INSURANCE PROPOSITION is still open to all swine raisers—wherein I will agree to PAY FOR ALL HOGS THAT DIE when my REMEDY is fed as a preventive. Write for plan or read particulars in my book "HOGGOLOGY," which will be sent FREE for the asking. A complete treatise on PROFITABLE SWINE-RAISING.

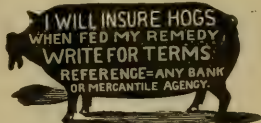
30 DAYS FREE TRIAL OFFER—Any reader of this paper remitting direct to me for a can or half can of my Remedy at prices below, and will give same a fair trial for 30 days, will have his money refunded if at the end of that time he is not satisfied that his hogs have been benefited, that the Remedy will do all that is claimed for it and that it is the best Hog Remedy he has ever used.

PRICES:

25-lb Can, - - \$12.50, Express Paid
Half Can, (12½ lbs), \$6.50, Express Paid
Packages, \$2.50, \$1.25 and 50 Cents Each

NONE GENUINE WITHOUT MY
SIGNATURE.

DR. JOS. HAAS, V. S., - - Indianapolis, Ind.




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Most of the world does. There are good and bad in PAINTS. But unless you are thoroughly acquainted with the PAINT industry, it is hard for you to tell the good from the bad. JNO. W. ATKINSON & CO., sell reliable PAINTS and you can depend upon what you buy from them. Their prices are as low as possible, consistent with good quality. Is it not best to buy where you know your purchase will be satisfactory? Write for PAINT prices and Color Cards to

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The Demand for Young Men and Young Ladies never better
LEARN either COMMERCIAL, SHORTHAND, EN-
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Business Men want our graduates.

Write for Catalogue and other information.

E. M. COULTER, President, ROANOKE, VA.

State Female Normal School.

Twenty-second Session begins **SEPTEMBER 5th.** For catalog and information concerning **State Scholarships**, write to

J. L. JARMAN, President, Farmville, Va.

3. What is the name of, and where can I get Chocolate Corn? It grows on corn like broomcorn; the seed was gathered, and when dry parched and ground like coffee, which made a very delicious drink—far better than chocolate or cocoa that is in use now.

OLD READER OF SOUTHERN PLANTER.

1. It is impossible for us to name the seed. There is such great similarity amongst seeds that even seedsmen handling them all the time will not undertake to identify them and botanists will not do so except to name well-known, distinctive varieties.—Ed.

2. We do not know where you can get the plant. Possibly the botanist of the Department of Agriculture, at Washington, may know something of it.

3. We do not know the chocolate corn you refer to. It is probably one of the sorghums. Soy beans were at one time offered under the name of the seeds of the coffee plant, and many grew the beans and parched them for coffee. We do not know what sort of a drink they made. They are very nutritious when cooked as beans.—Ed.

INJURY TO EYE OF HORSE.

In April last, my colt, about eleven months old, got a lick over his eye which caused the cornea to become very much clouded. His eye was bathed daily and white sugar blown in it with fair results, the cornea clearing with the exception of a small splotch. Is there anything that I can use to clear or remove this splotch? A READER.

James City Co., Va.

The best remedy to use for local injury to the eye of an animal is a solution of sulphate of zinc, 30 grains in a quart of water, to be applied constantly on a cloth. Where the injury has resulted in leaving specks or cloudiness on the cornea, the only way to remove these is to touch them daily with a soft feather dipped in a solution of 3 grains of nitrate of silver in one ounce of distilled water. This should be continued until all inflammation has subsided.—Ed.

THE DISC PLOW AND RIDING IMPLEMENTS.

When in doubt it is a good plan to consult The Southern Planter. I should be very much obliged if you would publish some information about disc plows. Will they do all the work done by the ordinary plow, and do it better? In what respects are they inferior to the ordinary plow? Many of us older men are not able to do a day's plowing with the ordinary plow, but could drive a disc or sulky plow without fatigue. In these days when labor is difficult to obtain, would it not be well for the farmer to have a riding plow, harrow and cultivator, and do his own work? Men of sixty

FEED

Mueller's Molasses Grains

FOR MILK, MEAT AND MONEY.

It will increase the flow of milk beyond your expectations and at the same time put your cows in better condition—it will put new life and energy in your horses and make them profitable workers.

Mueller's Molasses Grains is a rich, palatable grain feed for all kind of stock—has a guaranteed analysis of 23.54 protein, and is very reasonable in price considering its value. It is made of Dried Brewers Grains, Malt Sprouts and Molasses—nothing else—has no drug or condition powder of any kind in it, and can be fed in large quantities or for any length of time with perfect safety.

Mueller's Molasses Grains is a straight balanced ration with the addition of hay or other long feed, but being much richer than either oats, corn bran or meal, it requires less, but yields better results. It is also cheaper in price.

We would like to send you a list of testimonials similar to the following, and sample and price delivered to your depot.

From W. M. MERRIMAN, Dairyman,

R. P. D. No 1, Richmond, Va.

Dear Sir: I have had a full opportunity to test the merits of Mueller's Molasses Grains during the past two years, having fed it constantly with and without other feeds and am in a position to say it is the ideal feed for Dairy Cows. It agrees with them perfectly and makes more milk and better milk than anything I know of. I am feeding it at present with nothing but Cotton Seed Hulls and am averaging over three gallons of milk per cow per day.

S. T. BEVERIDGE & CO.,

HAY, GRAIN AND SEED,

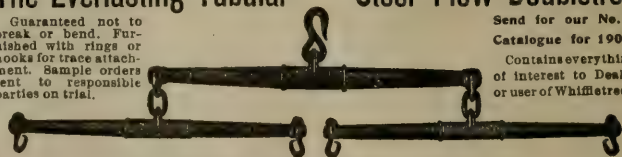
Distributing Agents, RICHMOND VIRGINIA. See other ad page, 678.



The Everlasting Tubular

Steel Plow Doubletree

Guaranteed not to break or bend. Furnished with rings or hooks for trace attachment. Sample orders sent to responsible parties on trial.



PATTERN No. 105 EQUIPPED WITH FORGED TRIMMINGS.

Also manufacturer of Farm Wagon Doubletrees, Neck Yokes and Singletrees.

Pittsburg Tubular Steel Whiffletree Company,
SOLE MANUFACTURERS

PITTSBURG - - PENNSYLVANIA.

Send for our No. 8

Catalogue for 1908.

Contains everything of interest to Dealer or user of Whiffletrees

How About YOUR Ensilage?

"OHIO" Ensilage Cutters cut two ways—cut and elevate the corn into silo at an amazing speed; and cut off huge slices from your ensilage expenses.

How does it "cut" expenses? By its immense capacity, its self feed mechanism, its power-saving direct draft blower, its simply operated silage distributor, its minimum use of power for maximum results.

Silage as a milk and beef producer is far superior to grain. Our book "Modern Silage Methods" (10c) tells all about it. Our Ensilage Cutter Catalog will easily convince the man who wants the best. Send for it. Manufactured only by

The Silver Manufacturing Co.,
Salem, Ohio.



MORVEN PARK.

The Property of WESTMORELAND DAVIS, Esq.

Reg. Dorset Horn Sheep.

Flock headed by Imported Ram, MORVEN'S BEST No. 4132 (C. D. C.), 1st. Prize at English Royal 1904.

We are offering for June delivery, fall born rams weighing, without forcing, at less than six months of age, from 110 to 130 lbs., and averaging 120 lbs. Fit to head any flock.

Large White Yorkshires.

Registered Pigs for sale. Herd headed by Imported boar HOLYWELL HUDDERSFIELD No. 4850, A. Y. C., 2nd prize at Yorkshire (England) Show, 1904. Only time shown.

All pigs either bred on the place and descendants of, or directly imported from the prize winning herds of England. These pigs are prolific, hardy, and they are economical feeders. They are the bacon breed of England and the coming breed of America.

REG. GUERNSEY CATTLE.

TUBERCULIN TESTED.

Herd headed by bull, IMPORTED TOP NOTCH No. 9023 A. G. C. C. son of Imported Beda. Advanced Register No. 136, official yearly butter record 640 lbs. of butter; assisted by MAINSTAYS GLENWOOD BOY No. 7607 A. G. C. C., son of Jewel of Haddon, Advanced Register No. 92, official yearly record 463 lbs. of butter.

We are offering a bull by Imported Top Notch out of Imported Claremont Ruth IV, Advanced Register No. 130, official yearly record 474 lbs. butter, average test 5.6 per cent. butter fat. Also bull by Imported Top Notch out of Princess Dorothy who has just entered the advanced Registry. This bull on dam's side belongs to the Honoria family and is closely related to Guernsey Champion, 1st. at the St. Louis Exposition. Also other bulls from approved deep milking dams.

ALL STOCK IN FINE CONDITION.

Flocks and herds may be viewed by appointment.

Address

**LIVE STOCK DEPARTMENT, MORVEN PARK,
LEESBURG, LOUDOUN CO., VA.**

The American "Fontaine" Shock Binder.

THE QUICKEST SELLING TOOL EVER PUT ON THE MARKET.

The Corn Growers' Friend. Saves its cost ten times in one corn crop.

Every farmer who cuts and shocks his corn must have one or more.

With this simple device one man can bind the shocks as fast as 10 or 15 men can cut and shock the corn.

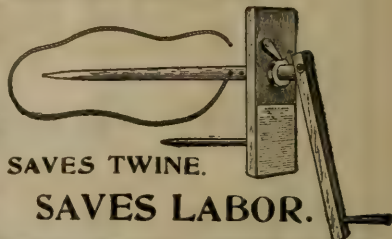
Approved by every State Experimental Farm and Agricultural College where tried.

TESTIMONIAL.

STATE TEST FARM, DEPT. OF AGRICULTURE,
Saxe, Va., Nov. 9, 1905.

We have given the Fontaine Shock Binder a thorough trial this season and I consider it one of the finest implements that we use on the farm. One man with it can do more work, and do it more thoroughly than two men can with a rope or wire. Our one corn field is a steep hill side on which not a single shock has been blown down, although we have had some very high winds since the corn was shocked.

S. B. HEIGES, Manager, Virginia Test Farm.



SAVES TWINE.

SAVES LABOR.

\$50 PER WEEK. YOU CAN MAKE IT.

Live, active canvassers wanted in every County and Township in the Union where corn is grown. Our salesmen are averaging ten to fifteen sales per day. You can make \$50. per week. Write or telegraph for Agency for your locality. Remit \$2. by registered Letter, Postal or Express Order, and we will send prepaid one of the Shock Binders, and our contract, and letter of instructions, and order blanks

Reference W. K. Bache & Sons, Implement Dealers, Richmond, Va.

AMERICAN SHOCK BINDER CORPORATION, No. 8, S. 10th, St., Richmond, Va.

or over are killing themselves with the walking plow, harrow and cultivator by overworking, because they must do the work themselves or leave it undone.

BEDFORD COUNTY FARMER.

Bedford Co., Va.

The Disc plow is a complete success on all land except sod land, and does most excellent work. With plenty of horse power, which it needs to work it effectually, it will do much more work in the same time than a walking plow, as both wider and deeper furrows can be turned. On sod land it is not yet a success. The sulky plow is also a good plow, and we are surprised that so few farmers use it. One gentleman reported to us this Spring that he had purchased one and was well satisfied with the work it was doing. There is no reason whatever why farmers should wear themselves out walking after implements when more than fifty sheep on the farm at done by using implements on which one can ride.—Ed.

SHEEP HUSBANDRY.

I have got possession of one of those rundown Virginia farms of about 150 acres of open land. I have fenced the same into three fields. I want to keep as many sheep on it as I can with safety. Two of the fields have a good sod of wild grasses. In the other field I expect to raise leguminous crops for hay and feeding sheep. I am now preparing a lot of fifteen acres I expect to sow to crimson clover and rye for winter and spring pasturage; the balance and the rye field I will plant with cow peas next summer. Half of this I will cut for hay and the other half I will graze off. How many sheep will this place carry? How many should run in one flock? Is it true that in Virginia you cannot keep

SPRAY NOW

It will soon be too late.

100 Per Cent. Dividend.

ON THE INVESTMENT IN A

DEMING
SPRAY PUMP

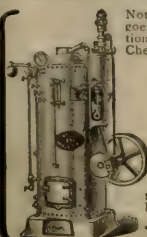
Can be realized by any
FRUIT GROWER.

Best Iron.
Best Brass.
Best Construction.
Simple.
Durable.

Sydnor Pump & Well Co., Inc.
Dept. B.
Richmond, Virginia.



Power That Counts.



Nothing can take the place of steam. It never goes on a strike; dependable under all conditions; power in abundance; any sort of fuel. Cheapest, safest, surest, best.

LEFFEL
Steam Engines

adapt the old reliable stand-by power to farmers' and planters' use. Numerous small sizes. Types that meet requirements—Upright, Horizontal, Portable, on Skids, etc. Consult your interests by writing us before buying power. Send for book of information.

James Leffel & Co., Box 183, Springfield, Ohio.





A Message to Corn Growers

How Some Have Doubled Their Profits.

There are thousands of farmers to-day who have succeeded in practically doubling the value of their corn crop. Formerly they merely gathered the ears; that is to say they would husk or snap the corn in the field and leave the stalks standing.

When they did that, they secured only about 60 per cent. of their crop and left about 40 per cent. to go to waste—because the ears represent only about 60 per cent. of the feeding value, while the remaining 40 per cent. is in the stalks, leaves and husks.

When our Government Experiment Stations and our practical corn experts made this fact generally known, many progressive farmers realized what it meant, and began to look around for the best means of harvesting the corn crop.

They didn't like the idea of working a whole season to raise a crop, and then harvest only about 60 per cent of the total yield.

Then the corn machines—the binder, shocker, and husker and shredder—were perfected, and the problem of saving the corn crop was solved.

Now the corn is cut just when the ears begin to glaze, for it is well known that both the fodder and ears have the most feeding value at that time.

The corn binder or shocker enables the farmer to cut all his corn before the stalks have had time to lose their succulent, nutritious juices.

The binder or shocker leaves the stalks in convenient form for running them through the husker and shredder.

In this way the corn grower nearly doubles the value of his corn crop, because every acre yields about two tons of stover, which in feeding value is nearly equal to timothy hay; and if you can't market your corn stover, you can market your hay, and feed the stover.

Hay will be hay this season, as there is a shortage in the crop that will be serious unless supplemented by corn stover.

This is the only way you can handle your corn crop if you wish to secure its full value. You are then operating on the same principle as the dairyman, to whom a corn binder or shocker is practically a necessity, because he makes ensilage—but you have the advantage over the dairyman—you can market the ears.

Suppose you have 50 acres in corn. There is \$800.00 in stover alone. Are you going to let that go to ruin in the field, or will you get a corn binder and shredder and put that \$800.00 in your pocket?

Why not purchase the corn machines and double the value of the corn crop?

This is a proposition that is worth your careful consideration.

YOU MAY HAVE A CHOICE OF

Osborne, McCormick, Deering, Champion and Milwaukee Corn Binders; Plano, Deering and McCormick Huskers and Shredders.

In each of these machines you have all the advantages made possible by the unequalled manufacturing facilities of the International Harvester Company.

The International Harvester Company owns its own timber lands and saw mills, its own iron and coal mines, its own coke plants and rolling mills from which it produces a large percentage of all raw materials used, selecting, in every instance, only the best material and working it out in the best way in the above great manufacturing plants. These are advantages which no buyer can afford to overlook.

The International lines are represented by different dealers in your town. Call on them for catalogues and investigate their machines.

International Harvester Company of America,
(INCORPORATED.) **CHICAGO, ILL.**

Ellis Champion Grain, Peanut and Cow Pea Thresher,

MANUFACTURED BY Ellis Keystone Agricultural Works, Pottstown, Pa.



We make four sizes of
**Grain and
Peanut
Threshers
and Cleaners**

NOS. 1, 2, 3, AND 4, FOR EITHER STEAM, LEVER OR TREAD POWER.

All of which are guaranteed to give entire satisfaction. Our THRESHERS and CLEANERS have been thoroughly tested throughout the United States, and pronounced by the growers of GRAIN, PEANUTS, BACK and COW PEAS as the most complete and satisfactory Thresher of the period. No grower of any of the above can afford to be without one.

For Catalog and any information desired, write to

GEO. C. BURGESS, Gen'l Southern Agent, Box 182, Petersburg, Va.

sheep on one farm over three years? Will rape grow on this land? How late can it be sown? Will sheep kill out tame grasses, such as redtop and orchard grass? I have a good dry basement barn which I expect to use as shelter for sheep. Is it dangerous to keep them in it over two years? Will it get infested with parasites and diseases to which sheep are heir to, or would it be better to use barn only in wintertime and provide a movable dark shelter for summer use?

A LOVER OF SHEEP.

Albemarle Co., Va.

You had better not attempt to keep more than fifty sheep on the farm at first until you get it better set in grass and have more land prepared to grow forage crops for winter feeding, as you will find that most of the native grasses are only summer growths (annual grasses) and you will want much feed to supplement the grass in winter.

You may run the sheep in one flock. Merinos or Grade Merinos can be run in flocks of one hundred or more, but the heavier breeds are better kept in lots of not more than fifty in each flock.

If the sheep are free from parasites and the land has not had diseased sheep on it for several years, sheep can be kept continuously on the farm. If you will be careful to graze the lambs on forage crops and not on the old pastures, you can keep them free from parasites, even though the old sheep are troubled with them. After the forage crops are consumed, then the lambs should go on to pasture upon which no sheep have been grazed for at least a year, and then there will be little risk of their becoming infested and a healthy flock can be built up.

Rape will grow on thin land, but will not make much growth unless helped with manure or fertilizer. It

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AMERICAN SAW MILL

VARIABLE FRICTION FEED

Ratchet Set Works, Quick Recorder, Duplex Steel Dogs, Strong, ACCURATE AND RELIABLE.

Best Material and Workmanship, LIGHT RUNNING, requires Little Power, Simple Easy to Handle, Won't Get Out of Order.

\$155.00 CASH

fits it on the cars at factory complete without Saw. Freight very low.

Warranted to cut 2000 ft. per day with 4 H. P. engine. Seven other sizes made. Also Loggers Trimmers, Shingle Machines, Lath Mills, Rip and Cut-Off Saws, Drag Saws, Cord Wood Saws, and Feed Mills. Catalogues sent free.

"Rowe, Mass., Oct. 24, 1903—I have a No. 1 American Saw Mill and I send you an order for another just like it. I run it with my 8 H. P. portable gasoline engine; have sawed 3000 ft. of lumber in 10 hours with it without any trouble. I use a 48 inch saw.

Yours truly, Bradley C. Newell."

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Surplus and Undivided Profits, - - - \$740,000.

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Being the largest depository for banks between Baltimore and New Orleans, we offer superior facilities for direct and quick collections. Accounts solicited.

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Three Per Cent. Interest Allowed in Savings Department.

When corresponding with our advertisers, always mention The Southern Planter.

Virginia State Fair

Richmond, Virginia,

October 9-13, 1906.

At The New Fair Grounds.

THE VIRGINIA STATE FAIR ASSOCIATION takes pleasure in announcing that the plans and arrangements for the Fair are now so far matured that it can be confidently stated that the Fair will be the greatest one ever held in the South.

PLANS of the required buildings have been prepared and approved and bids for their erection secured and this work is now in hand and will be pushed on with all speed possible. The buildings comprise Halls for the exhibition of Machinery and Farm products and ample stable, stall and pen accommodation for all classes of Stock. Also a fine Grand Stand from which to see the Races and parades of Stock.

A FIRST CLASS RACE TRACK is now being laid out and made, and a commodious grand stand is being erected.

THE MOST LIBERAL PREMIUMS ever offered at a Southern Fair will be hung up for competition, and both Free-for-all and Special classes will be provided for.

THE PREMIUM LIST is now being prepared and will be ready for distribution about August 15th. Send in your name now so that we can mail you one.

WHILST THE MAIN FEATURES of the Fair will be strictly Agricultural and in the interest of Live Stock breeders, yet there will be ample provision made for amusements of a high class character.

THE FAIR GROUND is directly on the Railroad and Street Car tracks and ample facilities will be afforded for the quick handling of great crowds of people whilst Stock and Exhibits of all kinds will be delivered directly into the grounds. The Railroads and Street Car Company have made arrangements for most liberal rates for Live Stock and the public, particulars of which, will be given in future announcements and in the Premium List.

Send in your name now so as to be sure of obtaining a Premium List.

THE VIRGINIA STATE FAIR ASSOCIATION,

Henry Smith, Gen. Mgr.

C. W. Smith, Asst. Gen. Mgr.

Richmond, Va.

Offices: 707 East Main Street,

can be sown in August for fall and winter grazing, and in March for spring grazing.

No; sheep will not kill out tame grasses, but will help their growth.

Sheep in the South require little shelter, and are better outdoors all the year round, except in a very stormy time. For the little time during which they will require shelter the barn may be safely used for years.

The parasites, if dropped in the barn, will soon perish, as they require the cool, moist earth and grass for the period of their existence passed outside the sheep. Darken the barn for a summer resort, or better, build a low, dark shed in the pasture.—Ed.

FERTILIZING VALUE OF COW-PEAS.

After taking off wheat this summer I plowed a field good and deep, and sowed in black peas, also used about 100 pounds to the acre of 14 per cent. acid phosphate. Peas and acid drilled in together. I want to know how much, if any, poorer in fertility this field will be if I let the peas get ripe and mow them off and thrash for seed than it would have been if I had not grown the crop of peas. I expect to put the field in wheat again.

A SUBSCRIBER.

Davidson Co., N. C.

The land will have been enriched by the pea crop in the element of nitrogen even though you cut and take off the vines and seed, as about one-half of the nitrogen gathered by the crop is found on the roots. The crop will have used up some of the phosphoric acid and potash in the soil, but probably the application of the 100 pounds of acid phosphate applied when the peas were sown will have about maintained the normal quantity in the soil. If you seed to wheat again, which is not good farming, you should apply either bone meal, or acid phosphate, before seeding or your land will get poorer, and the wheat will suffer for want of food.—Ed.

LIME.

1. I have a field planted in corn, which was limed with twenty-five bushels stone lime per acre before the corn was planted. I am now sowing rye in the corn to plow under in the spring for cow-peas. Now what I want to know is will I loose my lime by turning the land? Some of my neighbors say I will. Liming is new to me.

2. I have a field in peas now and will sow something for winter cover. Should I lime this fall or wait until the land is turned for corn?

R. M. L.

Loudoun Co., Va.

1. No. The lime will do its work

THE BIG TRUTH

FACTS COMMON SENSE

SMASHES THE WORTHLESS SEPARATORS

EASY OR HARD WHICH FOR YOU

Put **Facts** and **Common Sense** to work on a Tubular Cream Separator and you know it must be easy to operate. Put **Facts** and **Common Sense** up against a buck breaking, hard to wash, high can "bucket bowl" machine and you can't make yourself believe it is easy to operate. In the light of truth, the out-of-date, "bucket bowl" separators go to smash. Which kind for you, the

Tubular	or	"Bucket Bowl"
<i>Low Can</i>	or	<i>High Can</i>
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GRASS SEED CLOVER SEED TURNIP SEED SEED WHEAT SEED RYE SEED OATS FERTILIZERS POULTRY SUPPLIES DAIRY FEEDS HORSE FEEDS MOLASSES FEED

Send for Samples and Prices.
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SEE OTHER AD PAGE, 672

in the land for years to come, gradually sinking down and ameliorating the physical and mechanical condition of the soil in its passage through the soil.

2. Plow or cut up the pea stubble with a disc, and then apply the lime and harrow lightly; then sow crimson clover, or vetches, with some wheat, oats, and rye, and harrow in for a winter cover. See article "Work for the Month," for advice on this subject.—Ed.

CHEESE MAKING.

Please tell me how much rennet it takes per gallon of milk to make cheese?

G. H. GRANT.

Bedford Co., Va.

From two to three ounces of rennet per 1,000 pounds of milk is the usual quantity used.—Ed.

"ABSORBINE IS A GRAND ARTICLE."

Mr. F. L. Evans, Plano, Ill., writes under date of Nov. 14, 1905: "Send me one bottle of Absorbine. This is the fourth bottle I have had from you. I find it a grand article." You will find it the same. Absorbine merits continued patronage and gets it. It is a pleasant remedy to use—does not blister or remove the hair and horse can be used. Absorbine can be procured from your local druggist, or I will send you a bottle, express prepaid, under receipt of \$2.00. W. F. Young, P. D. F., 109 Monmouth St., Springfield, Mass.

WASHINGTON NOTES.

New Agricultural Statistician. Secretary Wilson has appointed Victor H. Olmsted as statistician of the Department of Agriculture to fill the vacancy caused by the resignation of Statistician John Hyde, about a year ago. When Mr. Hyde resigned and went to Europe, Assistant Secretary Hay was placed in charge of the Bureau of Statistics. Associate Statistician, Edward Holmes, was dismissed after an investigation of the office, which showed that premature disclosures had been made in the issuance of cotton reports. Mr. Olmsted's office was likewise investigated and stood the test.

Mr. Olmsted has a world-wide reputation as a statistician, and has filled many positions under the Government service throughout his thirty-six years of service. He has travelled many thousands of miles to various parts of the world collecting statistics for several branches of the Government. He assisted in taking the census in several distant islands belonging to the United States, and has proven himself eminently fitted for every position which he has filled.



Fruit Trees 7½c

(Apple and Peach) Other kinds low in proportion.

Why pay two to five prices for all kinds of nursery stock to cover agents' profits and bad debts, when we, by employing no agents and making no bad debts—selling for cash direct to the people at lowest wholesale rates—will save you so much. Twenty-two years' experience, 1,000,000 high-class fruit trees, 50,000,000 strawberry plants. Special bargains in apple trees. Safe and cheap delivery anywhere in U. S. Valuable book on fruit growing free to buyers.

Strawberry Plants

\$1.25 per 1000 in quantities

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First Class Nursery Stock
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Apples.	Nectarines,	Pecans,	Ornamental and
Pears,	Cherry,	Chestnuts,	Shade Trees.
Peach,	Quinces,	Walnuts,	Evergreens.
Plum,	Almonds,	Small Fruits,	Roses, Etc
Apricots,			

CALIFORNIA PRIVET, for Hedging.

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..ELMWOOD NURSERIES..

—We are growers and offer a fine assortment of—

APPLES, PEACHES, PEARs, CHERRIES, PLUMs, APRICOTS; NECTARINES, GRAPEVINES in large assortments, GOOSEBERRIES, CURRANTS, STRAWBERRIES, HORSE-RADISH, ASPARAGUS, DEWBERRIES, and an extra lot Raspberries. Splendid assortment ORNAMENTAL and SHADE TREES ORNAMENTAL SHRUBS and HEDGE PLANTS.

EGGS fro B. P. ROCK and BROWN LEGHORN FOWLS at \$1.00 per 13. Also, a few pullets and cockerels of these breeds at \$1.00 each for immediate delivery. Write for catalogue to

J. B. WATKINS & BRO., MIDLOTHIAN, VA.

Secretary Wilson, in speaking of the appointment, stated: "Mr. Olmsted has been engaged in compiling statistics for more than a quarter of a century, and I regard him as one of the most efficient and competent statisticians in the world, and one of the best men in the United States to fill the responsible position of Chief of the Bureau of Statistics, of this Department. Mr. Olmsted is a thoroughly trained, expert statistician, and it would take an outsider many more years than it has taken him to learn all he knows about census, crop reports, and statistics in general."

Effective Home Canning.

All during the growing season, on a well-established farm, there is found an abundance of fruits and vegetables from early spring, when asparagus and rhubarb are in season, until the winter apples are gathered in late fall. The best of the fruits and vegetables may be marketed, but there is often a good deal of material which cannot be profitably sold, and which frequently goes to waste. It is in the utilization of this material that a cheap canning outfit may prove profitable.

The Department of Agriculture has received a report from E. J. Watson, of the Louisiana Experiment Station, giving results secured at that station in the canning of fruits and vegetables with a canning outfit costing but \$10. The one used at the Louisiana Station had the capacity of 300 two-pound cans and 200 three-pound cans per day. It consisted, essentially of a specially constructed galvanized iron boiler, made to fit either a No. 7 or No. 8 kitchen stove; a basket or carrier that fitted inside the boiler; can tongs, and soldering irons. The Station ran two of these outfits, and the expense for the labor and material required to run them one day, in putting up 600 two-pound cans of tomatoes, exclusive of cost of the fruit, which was grown by the Station, was \$21.40. These canned tomatoes were sold for 70 cents per dozen, or, a total of \$35 for the lot, leaving a balance of \$13.60 to pay for the tomatoes used.

The details observed in the canning of tomatoes with this outfit is thus stated by the report:

In canning tomatoes, the first step is to scald the fruit just sufficient to loosen the skin so that it can be slipped off. To do this, we use a large iron kettle, commonly called a "wash pot." The tomatoes are placed in a cheap tin vessel, holding about one-third of a bushel, that has been punched full of small holes, and dipped into the boiling water, and allowed to remain about one minute, or until the skin will slip readily. The fruit is then peeled, sliced and filled directly into the empty cans. The cans must be well filled for good results. This finishes the first step. The filled cans

The difference between good and poor wheat crops is caused by

POTASH

A fertilizer is not complete unless it contains ample Potash; anything short of that gives poor yields. Wheat cannot thrive on food lacking that element which it most needs, consequently a fertilizer lacking the necessary Potash starves your grains.

Farmers are realizing these facts more and more. They are enriching their soil at the Fall planting with Potash, and reaping better and more profitable yields.

Our books on farming are sent free on request, to show how poor farms have been made to pay, and how good farms have been made better. There isn't a farmer in the country who can read them without profit.

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—DEALERS IN—

Seeds, Fertilizers and Wool.

SEEDS. We sell every kind of seed for field and garden of best quality, and as low as same qualities can be bought in any market.

FERTILIZERS. We sell Fertilizers for every crop, under our own brands. All who have used our High Grade Tobacco Stems, Corn Grower, Wheat and Grass Fertilizers, Pure Raw Bone, and High Grade Acid Phosphate, analyzing from 14 to 16 per cent, pronounce them the best they have used.

WOOL. We buy all the year round, and **PAY THE HIGHEST MARKET PRICES.** Parties wishing to purchase will find it to their interest to see us before buying.

—WE SUPPLY—

ALFALFA BACTERIA

in the shape of

INFECTED SOIL

from an old two acre Alfalfa plot which has given us 3 or 4 good cuttings yearly for the past seven years, and is still doing well. Price, \$1.00 per bag (in 4 bag lots) of about 100 lbs; more than 4 bags, 75 cents each; f. o. b. Midlothian; soil sifted and ready for use either by hand or drill.

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GENUINE AVERY



The Original Spiral Knife.

Stalk Cutter

For Corn and Cotton

IT CUTS AT A SLANT. Does better work than any other, yet avoids that terrible jolting and jerking common to others. Pleasant to use. Lasts a lifetime.

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are then passed to the second stage of the operation. The tops of the cans wiped dry with a clean cloth, the cap placed on and soldered around the rim, the small hole or vent in the center of the cap being left open. Then we are ready for the third step—that of exhausting the air out of the cans. This is accomplished by submerging the cans in the boiling water (in the boiler) about two-thirds of their length. They are held there until they come to a boil, or, for tomatoes, ten minutes. They are then removed, the small hole in the center of the top closed with solder, and the cans are thus completely submerged in the boiling water and boiled, or processed, twenty minutes, which is the fourth and last step in the operation.

Tomatoes, string beans, asparagus, rhubarb, okra, cauliflower, strawberries, blackberries, raspberries, peach-pears, plums, cherries, apples, figs, etc., can be successfully canned in a somewhat similar manner. Corn and peas cannot be successfully preserved by this method, unless the cans are processed—boiling, etc.—for three and one-half hours. But even then there will be many losses from swelled and spoiled cans. A bushel of tomatoes will yield about twelve three-pound cans of finished product. Do not try to figure up the comparative cost of home canning as against the price of the cans you can buy at the store. When you can your own tomatoes, or other vegetables or fruits, you know what is in the cans. When you buy canned tomatoes, or other products, you know only by hearsay what the cans contain—according to the best information, a fair, if not generous portion of hurtful preservatives, poisonous coal tar, coloring matter, and the like. Can the home product; therefore, plant enough of the same to insure a canned supply for the long winter months.

"Sell what crops you raise as you can, but what you can't sell, can."

GUY E. MITCHELL.

CAUSTIC BALSAM GOOD FOR SHOE BOILS.

Stanbridge Station,
Quebec, Canada, Nov. 5, 1903.
The Lawrence-Williams Co., Cleveland, O.:

I enclose \$1.50 for one bottle of your GOMBAULT'S CAUSTIC BALSAM. It is a fine medicine for all bunches where a blister is needed. You can recommend it for canker in dog's ear, one part of BALSAM to three parts of valaline. I have used it for shoe boils with a hypodermic syringe, by injecting the BALSAM into the boils with a hypodermic syringe.

THOS. G. GIBSON.

A POWER on Every Farm

THERE should be a power of some kind on every farm.

It saves labor, time and money, and increases the earning capacity of the farm.

It will work the raw material of the farm into a finished product.

All up-to-date farmers agree that the modern gasoline engine is the best farm power.

Our I. H. C. gasoline engine is the best gasoline engine.

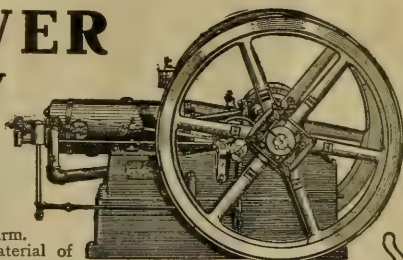
It is strong, durable, long lived and is of full rated, actual (not estimated) horse power.

It is easy to operate and is easily kept in working order.

It develops the maximum of power with the minimum of fuel.

Specially adapted to cutting dry fodder and ensilage, husking, shredding and shelling corn; threshing

INTERNATIONAL HARVESTER COMPANY OF AMERICA, CHICAGO, ILL.
(INCORPORATED.)



and grinding feed; sawing wood, separating cream, pumping water, etc.

Indeed there is no service required of a power that will not be performed most satisfactorily by this engine.

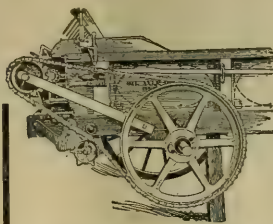
I. H. C. gasoline engines are made in the following styles and sizes:

Vertical—2, 3 & 5 Horse Power;

Horizontal—(Portable and Stationary), 4, 6, 8, 10, 12 & 15 Horse Power.

If you are not intending to purchase an engine now, you may want one in the future and really ought to know more about them.

Call on our Local Agent, let him show you the engines and supply you with catalog, or write for further information. Do it now.



Here's the business end.

It shows where the troubles lie with most spreaders.

See the solid steel brace from beater's end to the axle. That gives it the most solidly seated beater made.

Then note the drive chain. There could not be a more direct application of power from wheel to beater.

And that's all important. We learned by experience to do away with the gear drive; that power must be applied direct; that the steel pin chain beats anything else for transmitting power from wheel.

Harpoon teeth (new feature) cut all straw and keep beater ends clean.

Adjustable Pulverizer Rake is an exclusive Success feature—makes manure as fine or coarse as wanted.

These are just a few Success features—things that go to make up the superiority it enjoys over other spreaders.

The large axle in the Success is another

Success— There's Hard Work at this End of a Spreader

thing to remember. Larger than in any other spreader. Experience shows the necessity.

Its frame is second growth white ash. Never a set screw to hold parts to shafting.

It has a force feed which is under perfect control. Fast as wanted, slow as wanted, locked going up hill or down, no racing of apron.

These are pointers.

They are on the Success spreader because experience covering nearly 30 years has demonstrated that they are essentials.

Experience should count for something. Don't get the impression that manure spreaders are all alike or nearly alike. Don't be misled by a startling advertising headline.

Do a little investigating before you buy. Inquire of other users. You will find almost as many Success spreaders in use as all other makes combined.

The Success Spreader book tells a truthful story and tells it plainly. It will help you. Let us send you a copy.

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DON'T BUY GASOLINE ENGINES

UNTIL YOU INVESTIGATE "THE MASTER WORKMAN," a two-cylinder gasoline, kerosene or alcohol engine, superior to any one-cylinder engine; revolutionizing power. Its weight and bulk are half that of single-cylinder engines, with greater durability. Costs Less to Buy—Less to Run. Quickly, easily started. Vibration practically overcome. Cheaply mounted on any wagon. It is a coming thing. THE TEMPLE PUMP CO., Mrs. Meagher and 15th St., Chicago. THIS IS OUR FIFTY-THIRD YEAR.

OVERTON HALL STOCK FARM.

Choice Jerseys and Berkshires.

Overton Hall Farm, the property of J. M. Overton, Esq., of Nashville Tenn., is located six miles South of that city, on the main line of the L. & N. R. R., and contains about 500 acres. Part of the original grant made to the grandfather of Mr. Overton by the Government, originally of great fertility, it has been carefully and scientifically farmed, until to-day there are few places in the State of greater fertility. With an inherent love of live stock, and realizing that the high price of land made stock raising necessary for a profit, Mr. Overton decided three years ago to engage in raising Jerseys and Berkshires. Starting upon the principal that the best is always the cheapest, he has spared neither time nor expense in securing animals of the highest merit. That the purchase of same did not end the matter, unless properly cared for, he has had erected the best of barns, consisting of cow barns, finished in cement; a calf barn of same, dairy building, spring house, a hog barn of stone and brick; in fact, everything is built in the most modern style, yet, at the same time, the perfect practicability of each building for the purpose designed has never been lost sight of and at the same time, the ease with which it can be cleaned as the keynote of the entire plant, is "Cleanliness."

Starting on the foundation of the best Tennessee breeding in Jerseys, he has added the very best of Island blood, consisting in bulls as follows: Imp. Brookhill Fox, a son of Champ Flying Fox, and out of the famous Brookhill Rose 2d, this bull won numerous prizes in England before importation, and in this country has proven a great winner, being placed third at the World's Fair, even when not in good condition.

Imp. Dairy Laddie, a son of Picton 3d, he a son of Aristocrat, Oakland Fox, a son of Imp. Brookhill Fox, and

RUBEROID ROOFING



STANDARD FOR 14 YEARS.

The oldest prepared roofing on the market, and the first Ruberoid Roofs laid, many years ago, are still giving satisfactory service under the severest climatic and atmospheric conditions.

Contains no tar or paper; will not melt, or tear. Acid fumes will not injure it.

Outlasts metal or shingles. Any handy man can apply it.

There is only one Ruberoid Roofing, and we sell it. You can verify its genuineness by the name on the label and on the under side of every length of Ruberoid Roofing. Send for samples and booklet.

A large stock of Corrugated and V. Crimp Roofing always on hand.

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Prepared Agricultural Lime
Special Wheat Fertilizer
High Grade Bone and Potash

LEE'S

LEE'S PREPARED AGRICULTURAL LIME.

We can highly recommend it on stubble land or where there is a fair amount of vegetation fallowed under. After fallowing use 500 or 600 lbs., per acre, broadcast or what your drill will distribute; sow clover or other grass in the fall or early spring. You will be sure of a good crop of wheat and a good stand of Grass.

LEE'S SPECIAL WHEAT FERTILIZER.

On any land of fair fertility use 400 or 500 lbs per acre in the drill or broadcast; sow clover or grass and you will get a good crop of Wheat and a good stand of clover.

IMPORTED THOMAS BASIC SLAG and GERMAN FRUIT GROWER.

A. S. LEE & SONS CO., Inc., Manufacturers, Richmond, Va.

out of a granddaughter of Count Woolsey, and last, but by no means least, a son of the great Golden Ferns Lad, and out of Flying Fox's Bell of Grouville, who has just completed the great test of 21 lbs., 3 ozs. in 7 days with second calf, making her the highest tested daughter of Flying Fox and the highest tested granddaughter of Golden Ferns Lad in the list. The Tennessee strains are represented by Marna Figgis Tormentor, a son of Hood Farm Pogis IX, he out of the great Figgis, by Sophies Tormentor, and having for a dam, Marna, also by Sophies Tormentor.

The imported cows are represented by daughters of Golden Ferns Lad, Flying Fox, Eminent 2d, the great \$10,000 bull, Agatha's Flying Fox Aristocrat, Golden Lad's successor; Calet, and also Claudius, who is represented by the great cow, Lady Vernonia the greatest prize winning Jersey of the world, and for whom we paid \$2,500 at auction.

In founding the herd of Berkshires the same policy was pursued; viz: a careful examination of the blood lines represented in the prize winners, both in England and America, and a careful inspection of those lines, breeding the most uniform as to type. Once found, they were purchased regardless of expense, the herd, therefore, is rich in the blood of Lord Premier, Premier Longfellow, winner of Grand Cham-

pion at the St. Louis Exposition. The service boars are Sensation, a full brother, in blood, but in reverse order, to the great Masterpiece, who was purchased by Mr. Corsa for \$2,500. He has for a dam the great sow Silver Tips, who has had the honor to have thirteen sons standing as herd boars in seven different states, and two in the Island of Cuba—Loyal Premier, winner of first and champion at the Kentucky State Fair last season, and weighing in under a year form 540, he is a combination of Loyal Berks and Lord Premier breeding, and is just as good as he is large, both the above boars are being fitted for the fall fairs, and will easily weigh 800 pounds, or over, by fall. A son of the great Lord Premier, out of Premier Duchess, is also in service, bought when five months old at the record price for a boar of that age; viz.: \$295, we feel that we are in possession of a boar worth many times that amount. The sows have been carefully selected and represent the highest perfection in the breeders art. With all the expense in securing animals of the greatest merit and breeding yet, nothing is ever sent out as representing Overton Hall Farm unless it comes up to the high ideal established by the proprietor of these farms. Each and every animal sold is guaranteed to be as represented in every way.

The entire management of these farms is in the hands of Mr. Reuben Gentry, formerly connected with the Biltmore Estate, and for whom he made so many importations, and won for them the highest honors in the show ring. Overton Hall will be represented at the leading State Fairs this fall with Berkshires and Jerseys, and desires to become known to all breeders, whether wishing to purchase or not. Full descriptive price-list of Berkshires will be sent on application to the manager.

Accomac Co., Va., May 18, 1906.

I appreciate The Southern Planter too much to hesitate paying the very small subscription.

GEO. H. POWELL.

Cedar Villa, Antigua, West Indies,
May 7, 1906.

When I think of the large amounts I pay for French and English agricultural and scientific journals, I am really surprised that you can profitably run such a good journal as The Southern Planter for so small a subscription.

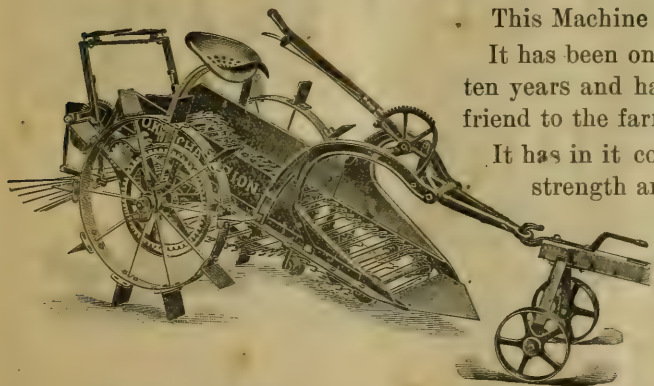
DR. J. S. GABRIEL.

St. Mary Co., Md., May 10, 1906.

I consider The Southern Planter the best paper for the farmer I ever read.

JAS. HALL.

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REPORT.

United States Department of Agriculture, Washington, D. C. Year Book of the Department of Agriculture, 1905. This is a most excellent issue of this annual publication and every farmer should have it as it contains information of great value. Ask your Congressman or Senator to send you a copy.

Bureau of Animal Industry. Bulletin 83. The Cold Storage of Cheese.

Biological Survey. Bulletin 25. Birds that eat the Cotton Boll Weevil.

Office of Experiment Stations. Experiment Station Record; Vol. XVII, No. 10.

Farmers' Bulletin No. 259. Experiment Station Work. Cattle feeding in the South. Use of a cheap Canning Outfit, etc.

Bureau of Soils. Bulletin 33. Calcium Sulphate in Aqueous Solutions.

Bureau of Soils. Bulletin 34. Reclamation of Alkali lands.

Office of Public Roads. Circular 51. Public roads of Maine, Mileage, etc.

Idaho Experiment Station, Moscow, Idaho. Bulletin 54. Picking, Packing and Marketing the Apple.

Illinois Experiment Station, Urbana,

Ill. Bulletin 107. Comparative Experiments with various insecticides for the San Jose Scale.

Bulletin 108. Spraying Apples for the Plum Curculio.

Bulletin 109. The location, construction and operation of Hog Houses.

Kentucky Experiment Station, Lexington, Ky. Bulletin 125. Observation and Experiments on Clover Alfalfa and Soy beans.

Bulletin 126. Soils.

Maryland Agriculture Quarterly, College Park, Md., May 1906. Analysis of Commercial Feeding Stuffs sold in Maryland.

Minnesota Experiment Station, St. Anthony Park, Minn. Bulletin 94. Soil Investigations.

Bulletin 95. Some Common Weeds and their Eradication.

New York Experiment Station, Geneva, N. Y. Bulletin 276. Strawberries.

Bulletin 277. A Healthy Herd from a Tuberculous Herd.

Bulletin 278. Raspberries and Blackberries.

Bulletin 279. Good results from Spraying Potatoes.

Tennessee Experiment Station, Knoxville, Tenn. Bulletin No. 3; Vol. XVIII. Alsike Clover.

Bulletin No. 4; Vol. XVIII. The control of Insects, Fungous and other Pests.

Virginia Department of Agriculture, Richmond, Va. Bulletin 31. Analysis of Fertilizers.

Virginia Weather Service, Richmond, Va., Reports for May and June, 1906.

West Virginia State Board of Agriculture, Charleston, W. Va. Report for the quarter ending June 30, 1906. Poultry.

West Virginia Experiment Station, Morgantown, W. Va. Bulletin 98. Raising Chicks Artificially.

Bulletin 101. Experiments in the Manuring of a Meadow.

Bulletin 102. Poultry Experiments. The value of Skim Milk for Egg Production.

Bulletin 103. Occurrence of Barium in the Ohio Valley Brines and its Relation to Stock Poisoning.

Bulletin 108. Tubercles on Legumes with and without Cultures.

Bulletin 106. Feeding Experiments with Milch Cows.

Bulletin 107. A test of different Sprays for the San Jose Scale.

Spotsylvania Co., Va., May 9, 1906.

I have been a reader of The Southern Planter ever since my arrival in Virginia, and will right here say that I do not want to be without it.

WM. F. LIEBENOW.

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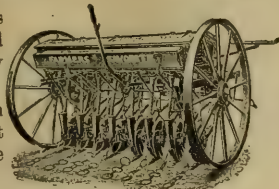
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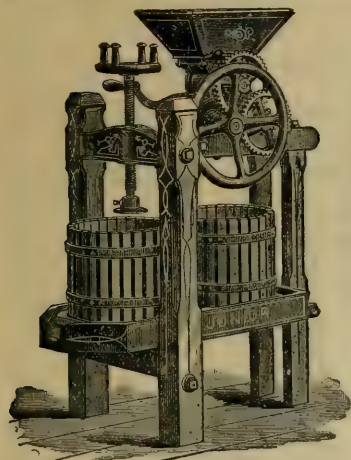
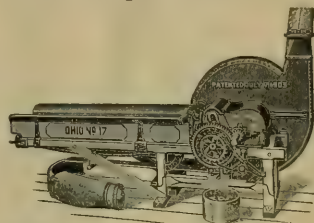
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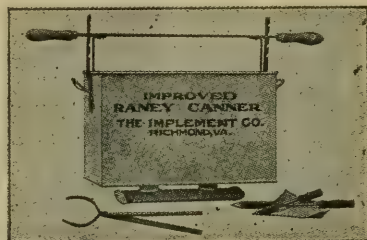
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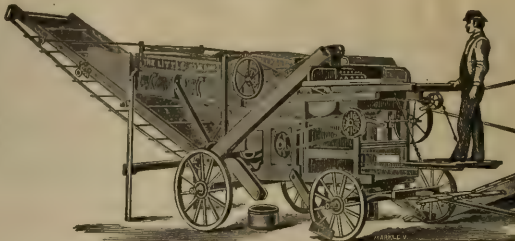
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A POPULAR FOOD PLANT.

What a great discovery the tomato was as an article food. While most plant foods are of comparatively ancient origin, there are plenty of people living to-day who can remember when it was only an ornament cultivated for the beauty of its dainty blossoms and handsome fruit. While its beauty was admired, it was considered, like the poisonous oak, dangerous to even handle, except by "dark complected" persons. Years of acquaintanceship, however, wore off its superstition, and a few "fool-hardy" actually owned up to having tasted the fruit.

From this small beginning has gradually grown a use that makes to-day an industry with a combined capital of over thirty millions of dollars, which disburses millions of dollars to its employees each year and aggregates an output of two hundred and forty million cans. This product goes into every house in the land, and is as familiar an article of diet as any other of the staple products of the soil. Each year sees an increasing consumption, and the more intimate the acquaintance, the greater the use.

The reason for this is very obvious. There is no better appetizer, and, as an article of seasoning, the tomato imparts a taste that cannot be imitated. It is so distinctive that its

presence can be located even in minute particles, yet the pungency has everything that delights the palate and nothing that offends the nostrils.

The growth of its general popularity dates back to the time of the first successful packing house. When the use of the tomato as a food was established, demand made it necessary to have a cheaper price than the local market gardener could afford; and, to meet this, the tin can, as a diminisher of space, was called into requisition. It was found much cheaper, proportionately, to raise one thousand bushels than ten; so by the aid of tin, the cooked product could be placed on the consumer's table at a price so reasonable as to enable its daily use. Moreover, the article put in the can is brought fresh picked from the field, hermetically sealed and immediately sterilized by heat, while the uncanned fruit is frequently shipped for hundreds of miles before it is used as a food. This artificially ripened fruit must be gathered green and the red color it finally assumes is the withering of hungry tissues that should have fed the fruit with the red nourishing juice that comes from the soil, and, by the aid of Mother Nature, is thus transformed. No preservative is used by the canner, as the action of heat insures keeping for an indefinite time.

There is nothing so healthy as this rich, ripe fruit dumped out of the clean white can ready for any use. The taste is equal to the fresh fruit and every semblance of waste, in shape of rind or core, has been removed. Eat it?—why, the very sight and smell are irresistible, and the most insistent appetite can be satisfied because of its harmlessness. Its healthfulness has never been attacked and the rich juices, colored as the life-giving fluid, act as a tonic even for the invalid stomach. There is no home where its visits are not welcomed, and the table of either the millionaire or peasant is alike familiar with its presence. Like Indian corn, it is distinctly of American origin, and proud indeed can we be of both of these excellent food plants.

Mecklenburg County, Va.,
April 9, 1906.

I consider The Southern Planter the best agricultural paper I have ever seen.
J. E. BRAME.

Prince William Co., Va., May 17.
I think The Southern Planter is the best publication printed for this country, and ought to be read by every farmer.
L. F. MERRILL.

MAP OF WILLIAMSBURG (VA.) QUADRANGLE.

An area that has been a battleground in numerous wars has recently been mapped by members of the United States Geological Survey. It is a quadrangle in Virginia named for the historic old town of Williamsburg, which, in early days, was the capital of the Virginia colony.

Williamsburg itself is of great interest to students of colonial times. The foundation of the building in which the House of Burgesses used to meet still stands. On a monument which also marks the spot, are recorded the names of the members and a few of the celebrated events, such as the delivery of Patrick Henry's famous speech on "Treason," and the promulgation of George Mason's "Bill of Rights," that have made this place memorable. Williamsburg is the site of William and Mary College, one of the oldest educational institutions in the United States. Here, also, is Bruton church, the oldest church parish in America, where may be seen the font at which Pocahontas was baptized. In the town are many houses which antedate the Revolution.

The old forts and earthworks around Williamsburg are numerous remind-

ers of the Civil War, as the town was on the line of General McClellan's peninsular campaign.

The most conspicuous natural feature of the map is York River, which crosses it diagonally from the northwest to the southeast. On the north

bank of the river, are still standing some of the original houses in which families that bore the well-known names of Taliaferro, Sewall, Page, Stubbs, Tabbs, etc. resided in colonial days. On the banks of Timberneck Creek which flows into York River

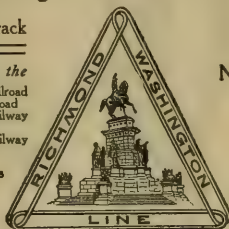
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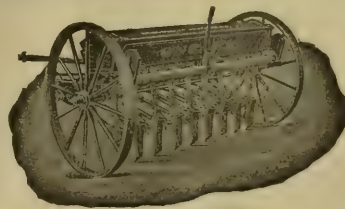
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from the north, are the ruins of the house built for the Indian chief, Powhatan. Near it is a rock which is shown to visitors as the same one on which Capt. John Smith's head was placed at the time when his traditional rescue by Pocahontas was accomplished. Ware church and Abingdon church, both on the eastern edge of the quadrangle, but some distance apart, are landmarks of other days. At Bacon's Quarters, in the northern part of the quadrangle, we have a reminder of Bacon's Rebellion.

The people of this quadrangle form a prosperous agricultural community. A large and remunerative oyster industry is carried on here. On Page's Rock in York River are found the far-famed York River oysters, well known to bon vivants for their delicious flavor.

The topographic survey of the quadrangle was made by Messrs. Albert Pike and Robert Coe, of the Geological Survey, and the control was executed by Messrs. C. B. Kendall and R. L. Harriman, of the Survey. It is their testimony that the people of this region are charming and hospitable, and make life very delightful to their visitors.

Always mention The Southern Planter when writing to advertisers.

SUMMER MEETING OF THE W. VA. STATE HORTICULTURAL SOCIETY.

You are cordially to attend a summer meeting of the West Virginia State Horticultural Society to be held at Sinks Grove, Monroe County, W. Va., on September 12 and 13, 1906.

THE PLACE.

chosen. Monroe and the adjoining county of Greenbrier comprise some of the most beautiful and fertile farming lands in the State. In recent years the excellence of the fruit grown in this locality has attracted wide attention and the business of commercial orcharding is being rapidly developed.

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THE PROGRAM.

The subjects to be discussed are live, practical and up-to-date and will be handled by men from West Virginia and other States who are acquainted with our conditions and who are leaders in horticultural work.

ATTEND THE MEETING!

TAKE SOMETHING FOR THE EXHIBIT!
ASSIST WITH THE PROGRAM!

BOOKS AND CATALOGUES.

The Packers, the Private car lines and the People by J. Ogden Armour. A defence of the packing industry from the attacks made upon it, by the head of the largest packing house, and a justification of the private car line system. Published by the Henry Altemus Company, Philadelphia. This book gives the other side of the packing-house controversy as contra distinguished from that given by the Yellow Journals. How far the book may succeed in changing public opinion on the question remains to be seen. Anyhow it is well to have the packers' side given. We believe in

the old motto, "Give even the devil his due."

Catalogue of the Virginia Polytechnic Institute (State Agricultural and Mechanical College), Blacksburg, Va.

Fairbanks, Morse & Co., Chicago. Ills. Gas, Gasoline, Kerosene and Alcohol Engines.

Jamestown Exposition, 1907. Official Classification of Exhibit Departments.

James Good, Philadelphia, Pa. A Pocket Manual of Plant Diseases.

The weekly Florist Review of New York City of July 12, 1906, has an excellent likeness of Mr. Henry W. Wood, of this city, seedman, with a short biographical sketch of his business career, which is especially complementary to him in reference to the Seed Catalogues of the firm of T. W. Wood & Sons, which have always been prepared by him; and are put forward as an example of what a Seed Catalogue should be.

Pittsylvania County, Va.,

April 6, 1906.

The Southern Planter was taken in my family more than fifty years ago, and has always been a most welcome visitor. I consider it the best paper for the South. J. H. SCALES.

JAMESTOWN EXPOSITION NOTES.

The Jamestown Exposition site is near Norfolk, Va., on Hampton Roads.

The grounds of the Jamestown Exposition cover 350 acres; the Exposition's water space extends several miles along Hampton Roads.

The great parade grounds, where soldiers of all nations will drill during the Exposition, covers 30 acres.

The Administration Palace will be 236 feet in length and 160 feet wide, with wings 62 feet deep.

Isle of Wight County, Va.,

Apr. 4, 1906.

I think your valuable journal is something that is needed in every practical farmer's home.

A. O. CHANNELL

Prince Edward County, Va.,

April 3, 1906.

I think you are making a great journal, and I generally read it from cover to cover and enjoy it.

T. WM. DIGGS.

Campbell County, Va.,

April 9, 1906.

I like The Southern Planter very much, and would not be without it. MRS. H. F. WOOD.

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Record 2.21 $\frac{1}{2}$ Bay Horse

by Sidney, 4770, dam Crown Point Maid, by Crown Point, 1990. Sire of Newboy, 2.14 $\frac{1}{2}$, and 9 others in list. Fee \$35 season.

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Brown horse 5, by Moko, 2447, dam Rosa Baron by Earl Baltic, 17724. Fee \$25. Insurance.

RED DILLON, 38696,

bay horse, 4, by Baron Dillon, 17237, dam Zinda Lake, by Red Lake, 26998. Fee \$20 insurance.

Address,

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LORD CHANCELLOR 36614,

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Black horse foaled 1899, 15.3 hands, weight 1,100 lbs. sired by Dave Devil, 2.09 (son of Mambrine King, 1279, and Mercedes, by Chimes, 5348.

1 dam Princess May R. by Prince Regent, 2.16 $\frac{1}{2}$ (son of Mambrine King and Estrella, by Alcantara, 2.23.

2 dam Mary Weston (dam of 3 producers) by Mexican, 519.

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FANCY HAL, (saddle stallion) bay horse, by Prince Hal, dam, Fancy Girl, by Fancy Boy. KING OF SPAIN, black Spanish Jack. Fees, \$5 leap; \$8 season; \$12 insurance. Address,

HUNTERS HILL FARM, Apple Grove, Louisa Co., Va.

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CHERRY BLOSSOMS IN JAPAN.

The Japanese are such intense lovers of nature that the worship of flowers is a part of their life, as well as of their religion and art.

Perhaps the loveliest and most characteristic of their flower shows is that of the cherry blossoms, which comes in April, or early May. The Japanese cherry is a flowering tree, not bearing fruit, with a large double pink blossom, hiding the foliage entirely when in bloom. They call it "The King of Flowers," and the cherry viewing, which takes place after the much-dreaded winter is past, is a season of festivity and rejoicing, lasting two weeks. The long avenue of cherries in Ueno Park, Tokyo, is the most popular resort at this season, and thither flock thousands in holiday attire to wander up and down under the pink clouds which every zephyr brings down from the profusely bearing trees. To add to the gayety of the occasion, you see springing up on all sides tea houses, shops and booths, where the weary may regale themselves on cherry water and rice cakes, or where they may compose poems, which, hung in the branches of the trees, are mementoes of the visit. To foreign eyes, the people themselves are more of a show than the flowers.

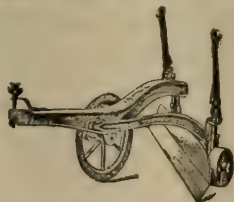
All classes and conditions of society throng the broad avenues, laughing, chattering and pouring forth praises of the beauty around. The soft colors of the women's draperies, their elaborate coiffure, the bright flowered dresses of the children, thrown into relief by the darker kimonos of the men, and, over all, the fragrant masses of pink blossoms, make a picture full of color, interest and motion to the observer of human nature, and on such occasions, the Japanese politeness and good nature show at their best. Meantime, polite society in Tokyo is on the qui vive in contemplation of the Emperor's cherry blossom garden party, at one of the palaces set aside for this purpose, for only a chosen few may enter the imperial palace without the moats. Apparently, there are the same heart burnings as take place in the Western world over invitations, costumes, etc. A few days before the event takes place, a page bears cards of invitation to the favored ones, and these cards are very impressive looking, if not altogether intelligible to foreigners. They are very large and heavily embossed in gilt, with the imperial crest, kihu-noman, the 16 petalled chrysanthemum in one corner, and then much Japanese chirography which, translated,

means that his imperial majesty requests your presence at his palace on such a day and at such an hour, a command, of course. Simultaneously, notices appear in the daily papers, regulating the dress and etiquette of the occasion, so that strangers may not offend. Ladies are required to wear full afternoon dress, with gloves, but without wraps. Gentlemen, the same, but officers wear their uniforms, with orders. The Japanese observe much form and decorum in their deportment and dress and expect the same of others. The permits to visit the royal castles and villas require polite behavior and handsome dressing.

It was a cold, damp spring afternoon, we drove away in our purple and fine linen to the palace in a landau, which cost us, for that occasion, \$9.00 in gold, triple the usual fare, the livermen reaping a rich harvest. We would gladly have retained our wraps, but the officers at the gate firmly, though politely, refused. In a moment, we found ourselves in fairyland, in which a landscape garden was the back ground for the most wonderful and beautiful kimonos we had ever seen. That useful article—the American kimono—bears slight resemblance to its prototype, the native dress of the Japanese, which is of the

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most delicate and refined shades, underneath which is worn, sometimes, a bright garment, showing a gleam of color in walking. The court being modelled on those of Europe, all the gentlemen not in uniform wore the conventional Prince Albert coat of the latest and most approved cut, but, fortunately for us, the ladies were not in European dress, which looks so absurd on their figures. On the contrary, they were wearing the softest crepe kimonos, in old blue, heliotrope and grey, with dainty touches of flowers on the border, underneath which their feet peeped out, arrayed in pretty sandals. Their hair was combed into high, stiff puffs and rolls, with various ornaments of amber, steel and coral. They themselves wore flowers enough for us, with their charmingly picturesque appearance and exquisite gentleness. As we walked through the vast palace gardens with their fine trees, shrubs, lakes, drawbridges, and rest houses, we felt like Alice in Wonderland or in the looking glass world. When their majesties came into the garden the guests formed in line, whilst the handsome pair walked down, smiling and bowing, after which there were a few presentations, an elaborate supper served in the kiosks, and then sayonara (farewell).

Whilst Tokyo, the heart of old Japan, is peculiarly zealous in its celebrations of cherry blossom season, there are also lovely cherry avenues in Mukojima, where family parties go out for a day's picnic, and every locality has its shrine, to which cherry pilgrims come from miles around. In Maruyama Park, there is a wonderful, spreading tree, 300 years old, and when in bloom, it is a centre of attraction drawing hundreds of people daily to see it.

At the Gusha school, they have a famous cherry dance, given only once a year, to celebrate this season.

"TRAVELLER."

Baltimore City County, Md.,

April 21, 1906.

Permit me to say without the slightest intention of flattery that I consider The Southern Planter a most valuable agricultural journal.

G. D. BUDDECKE.

Henry Co. Va., April 5, 1906.

I have been greatly benefitted by the perusal of The Southern Planter, and am glad that Southern farmers have such a good, sound paper.

C. D. THAYER.

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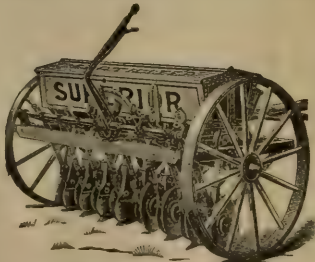
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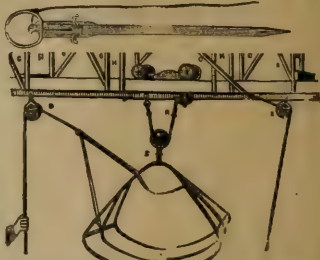
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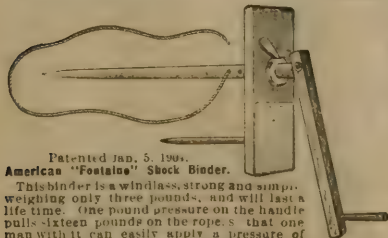
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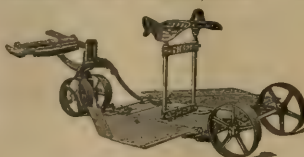


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Agriculture is the nursing mother of the Arts.--XENOPHON.
Tillage and pasturage are the two breasts of the State.--SULLY.

67th Year.

Richmond, Va., September, 1906.

No. 9

Farm Management.

WORK FOR THE MONTH.

The wet weather upon which we remarked in our last issue has continued persistently all through the month of August to this writing (21st August) and the indications are still for showers. Since the 28th of May when the spring drouth was broken by the first rainfall we have had in Middle and Eastern Virginia scarcely a day without more or less rain, and this has been also the case in all the eastern section of the Coast States from New England to South Carolina. During August the rain has also extended over the western sections of these States more or less persistently, so that now pretty nearly the whole of these States are completely saturated with water, and yet with all this we have had in no section any serious damaging floods. The quantity of rain which has fallen since May in the Atlantic and Coast States is largely in excess of the normal and we doubt whether at any time previous, since the records were kept, has so much rainfall been registered in June, July and August. The ground was very dry when the weather broke and the rainfall having been largely in the form of gentle showers every day or night, it has been absorbed by the land and hence has resulted in no serious damage in the way of floods. During most of the time the temperature has been normal or slightly in excess of this, and the result has been a state of humidity which has conducted to a marvellous growth of all crops and weeds. Wheat and oats in shocks has been seriously injured by sprouting, as it has been impossible to thresh it. Such a condition

of affairs points forcibly to the advice we have often given to put crops into stacks or under cover as soon as they are sufficiently cured to store safely, and not take chances with them standing in the field until an opportunity occurs for threshing or otherwise handling them. Thousands of bushels of wheat have been lost absolutely and other thousands badly damaged in the eastern section of the country this year by neglecting the stacking of the crops at the earliest opportunity. The labor and cost involved in hauling the grain crops from the field and putting them into stacks is not wholly so much extra cost added to the harvesting expense as the crops have in any event to be hauled from the field. When once hauled and put into stacks the expense of threshing is much reduced as the work can be done so much more quickly from the stack than from the shocks. We hope farmers in the eastern part of the Southern States will be warned by their experience this year and follow the example of their brethren in the Valley and Western part of the states, who almost invariably stack their grain crops before threshing.

The weather in the great Winter Wheat belt of the West has been very propitious for harvesting and threshing the crops and the machines have disclosed a wonderful yield from a crop that at one time looked like only making a small return. The Government report makes the average yield of the winter wheat crops over 16 bushels to the acre with a gross production of over 493,000,000 bushels, a record yield

for this crop. The spring wheat crop does not promise to be quite an average one, but the two crops together are expected to make this year's crop the equal of the best ever produced in the country. Should the harvesting season in Canada be good that country also will make a record crop, and in the face of this great production wheat prices may be expected to go lower notwithstanding the fact that Europe will likely be a large buyer, as crops there are in several of the countries below the average.. The English wheat crop will not be up to the average and this country and Canada will no doubt be called on to supply a large quantity to that country, but this is going to be supplied at a very moderate price as the export surplus here and in Canada is going to be large.

Notwithstanding the fact that the excessive rainfall in the Southern Atlantic Coast States has largely prevented the cultivation of the corn crops as frequently as would have been desirable, yet the high temperature and humidity has caused a marvellous growth which has kept ahead of the weeds and the condition of the crop is now in these states ahead of the yearly average and bids fair to make a most excellent yield. Highland corn probably never looked more promising and even on thin land poorly prepared there is an excellent growth and the promise of more than an average yield. As the acreage planted in these States is in excess of the average it seems likely that we shall have a record crop of corn in the South, where about one-third of the crop of the country is made. In the great corn belt of the West conditions have not been quite so favorable for the progress of the crop as in the Southern States. There has been a deficiency of rain in many sections until quite recently. If, however, present moisture and temperature conditions are maintained for a few weeks the success of the crop is assured and a yield in excess even of that of a year ago is probable. Notwithstanding this prospect the price of corn keeps firm and we expect to see this firmness to be maintained as the shortage in the oat crop will cause demand for corn for feeding purposes.

The condition of the cotton crop is not quite so favorable as a month ago. In many sections of North and South Carolina the crop has been seriously damaged by the excessive rainfall. Weed growth has been rapid and the bolls have set badly. Much of this cotton has been abandoned and will make but little lint.

Tobacco has suffered severely in many sections from the heavy and continuous rainfall. Its growth is becoming coarse and the crop bids fair to be much lacking in quality.

Sweet potatoes in Tidewater section of this State and in Eastern North Carolina have been badly damaged by the excessive rainfall and the crop is sure to be disappointing both in quantity and quality. The second crop of Irish potatoes is also likely to be short, it having been impossible to plant the usual acreage, and much of the crop planted has rotted. The condition of the Irish potato crop throughout the country is not equal to the average at this season of the year and there is complaint of rotting in sections where large crops are produced.

The prospect for the peanut crop is not so satisfactory as could be desired. The continuous rains have injured the crop very much by preventing proper cultivation of the same and by producing a heavy growth of vines and weeds, which growths are being made at the expense of the nuts. There is every reason to expect a much reduced crop and this in the face of exhausted supplies of old nuts is likely to make the price good for those who may succeed in making a crop.

In consequence of the constant rainfall in August very little of the work which we advised to be done in that month in our August issue has been accomplished. It has been almost impossible to get into the fields to do any work, certainly impossible to do more than a few days work at odd intervals. The saving of the forage and second and third crops of clover and alfalfa has been very slow work and much of the crop has been spoiled. The saving of these crops will be very heavy, slow work. As soon as the rain ceases and the ground dries sufficiently to permit of going on it with machines, forage and clover and hay crops should be cut and be allowed to lie broadcast for some time to dry out and get rid of superfluous water. Do not, however, let them lie broadcast long enough to lose the leaf and become burnt up. Put into windrows and then into small cocks, and cure out in this way. Cowpeas and cowpeas and sorghum have made such enormous growth that the saving of these crops is going to be slow work.

Let these crops wilt thoroughly whilst lying broadcast and then put into windrow and small cocks

or shocks, and break these out every day or two and dry out, and then put two or three of the small cocks together and thus complete the curing. Sorghum grown alone should be allowed to lie broadcast for a week or so before being put into shock, and the shocks should be made small. With patience good cures can be made of all these crops during the fall months. The great point to be observed is not to put the crops into too large bulk before the excess of moisture is dried out. If this rule is observed the forage, when cured will be fuller of nutriment and be better eaten by stock than similar crops cured in the hot, scorching sun of July.

The work of seeding grass and clover should have attention as soon as ever the land is dry enough to work. September is the last month in the year in which grass seeding can be done with a reasonable prospect of success, and we urge that every effort be made to get as much seeding done as possible, as fall sown grass crops in the South are much more to be relied upon to make a stand than when seeded in the spring. Besides this consideration there is the advantage of thus getting work out of land which, if left over until spring, will hinder the doing of other work which can only be done at that time. In our August issue we wrote very fully on this question of grass seeding, and to that article refer our readers.

Alfalfa should be sown before the middle of the month. In our August issue we wrote fully on this subject, and refer our readers to that article. In this issue will be found an article from Messrs. Wing Bros., on the subject of alfalfa growing, which should be read by all who contemplate growing the crop, and as every farmer ought to raise it, each one is, or ought, to be interested in learning from the most successful experts how best to succeed.

The preparation of the land for and the seeding of the winter oat crop should have attention at once. Long experience in growing oats in the South has abundantly proved that to be the greatest success the crop should be seeded in the early fall, and the month of September has been found to be on an average of seasons the best month for seeding. If sown during this month on well prepared, fertile land, there is no reason whatever why from 50 to 60 bushels to the acre should not be made. We have known 75 bushels to be grown. It is, however, essential to success that the land be fertile, and that it be deep-

ly plowed, and finely prepared with the harrow cultivator and roller before the seed is sown. Oats will grow and make some crop on poorer land than any other of the cereals, but it is foolish to waste time and labor in putting in the crop on land which cannot possibly be expected to make a yield of at least 25 or 30 bushels to the acre. The value of good preparation of the land before seeding is quite as apparent in the growing of the oat crop as in any other crop, and very much of the failure to grow good crops of oats in the South arises from neglect of this good preparation, and too late seeding. Another cause of failure is not putting in the seed deep enough. Very commonly the oats are sown broadcast and poorly harrowed in. The result is that the oats lie largely on the surface or barely covered, and the first light frost kills out a great part of the seeding. Shallow plowing of the land also largely contributes to this winter killing of the crop. The water is unable to get down into the subsoil, and the first hard frost freezes the soil saturated with water, and kills and throws out the oats. Oats should be put down at least 4 or 5 inches into the soil either with a drill or by being sown in furrows opened in the land after it has been plowed and prepared finely, and then these furrows be worked level again with the harrow. They may, if sown broadcast, be covered with a disc cultivator, and afterwards be run over with the harrow to level the land. The variety to sow is the Virginia Grey winter oat, or the Appler oat. The former is an old, well tried and proved success when put in properly. The latter is a newer variety of which we have excellent reports, both as to yield and quality. Sow at least 2 bushels of seed per acre, more rather than less. We have sown 3 bushels, and made a fine yield. If the land is not in a good state of fertility an application of 200 or 300 pounds of acid phosphate per acre will greatly help to secure a crop, especially if followed by a top dressing of 75 or 100 pounds of nitrate of soda per acre in the spring after the crop has commenced to grow. After the crop has been sown and harrowed in, see to it that plenty of water furrows are opened through all low places, so that water may be quickly drained off the land during the winter. This will save much winter killing.

The work of preparing the land for the seeding of wheat should have attention at once. Experiments made at many places have conclusively shown that early plowing and frequent harrowing and roll-

ing of the land during the month or six weeks previous to seeding, has a most beneficial effect on the yield of the crop. Anything that conduces to increasing the yield in the South ought to commend itself to our readers. An average production of 10 or 12 bushels to the acre, which is about what the Southern States make, cannot be profitable at the average price for which wheat is now selling, or is likely to sell. There is no reason whatever why we should continue to make such poor yields. We know scores of farmers who will make average yields of 25 bushels to the acre, and many who make in a good wheat year 35 bushels, and this on land naturally no better than that on which only 10 or 12 bushels is being made. The difference is not solely or mainly one of fertilizer supplied, for some of those making the heaviest yields never use any fertilizer whatever on the crop, except such as is supplied by the growth of cowpeas or other legumes. The main cause of the difference in productive capacity is the preparation of the land for the crops grown. Deep plowing, fine breaking with the harrow, cultivator and roller, and perfect preparation of the seed bed, with seeding as early as may be safely done for the fly are the principal causes for the better yields secured. The growth of cowpeas and other leguminous crops on the land intended to be put into wheat has also had a great effect in increasing the yield of the crop. In Illinois in twelve tests, covering three years' work, land untreated with legumes and lime, produced only an average of 6 bushels per acre, whilst land on which leguminous crops had been grown in rotation, and to which lime and phosphorus had been applied, made an average yield of 19 bushels per acre, the cost of the application of lime and bone-meal being \$3 per acre. We have known equally as good results obtained here in the South from the use of the same means of improvement of the soil, when combined with good preparation of the soil. Wheat needs for its successful growth a deeply broken soil, but with the sub-surface soil well compacted again after having been broken, and before seeding, and with the surface two or three inches of soil, fine, loose and mellow. Such a condition of soil can only be obtained by early plowing of the land, and then by following this up with frequent harrowing, cultivating and rolling until the time of seeding. If you have no roller use the plank drag to follow the harrow and cultivator. This frequent working of the land will insure the killing of many, if not most, of the weeds in the soil, and thus secure to the wheat crop the sole use

of the fertility and moisture in the land. Wherever land has not had any lime for some years an application of 25 to 50 bushels (1 to 2 tons) to the acre will greatly help the wheat crop. This lime should be applied as soon as the land is plowed, and be spread broadcast and be harrowed in. Wheat calls for all the three elements of plant food: nitrogen, phosphoric acid, and potash, for its successful growth, and the essential that these elements be in an easily available form. Wherever a pea fallow or a clover sod has been plowed down it will supply nearly all the nitrogen required by a wheat crop. On most of our clay or heavy loam lands there is potash enough in the soil for wheat if only it be made available by the use of lime. On light lands it may be advisable to apply 100 pounds of muriate of potash per acre. Phosphoric acid, however, is the main ingredient called for by a wheat crop, and this must be supplied if success is to be assured. This can best be furnished by bone-meal or bone-meal and acid phosphate, say 200 pounds of bone-meal and 200 pounds of acid phosphate per acre. Where a cow-pea fallow is utilized for the wheat crop, it is better to either cut off the peas for hay, leaving a heavy stubble to be turned under or to cut the whole crop into the soil with the disc or cutaway harrow. Where a heavy pea crop is turned under it is difficult to get the soil compact enough for wheat to do well. Wherever land was well prepared for a pea crop by being deeply plowed and finely broken before the peas were sown a good seed bed for wheat may be secured by the use of the disc or cutaway harrow alone without plowing. Do not be in too great a hurry to sow the wheat. From the 10th to the 15th of October is early enough to begin seeding. Wheat sown before that time is very apt to be injured by the fly. If fly has been prevalent in the locality this year, trap crops or patches or strips of wheat should be sown in the field intended to be seeded this month early. On these the flies will settle, and feed, and lay their eggs. These should then be plowed down a week or ten days before the wheat is to be sown, and be rolled and made compact, and thus destroy the flies and their eggs, and pupa. We do not say anything as to the variety to be grown here, as we hope to publish in another column the results of the tests of varieties made at the Experiment Station, Blacksburg, this year. As to the rate of seeding, we would say that we are always advocates for heavier seeding than is common in the South. Except on very rich land we would never sow less than 2 bushels to the acre,

and on medium fertile land we have sown 3 bushels with excellent results. Two bushels, however, we think should be sufficient on any land that is good enough to be put into wheat. Take care to treat the seed wheat with formalin solution, 1 pound to 25 gallons of water to kill all smut germs before seeding. Have the seed wheat re-cleaned and all light grains blown out before using. Sow only the finest and heaviest seed. Like produces like.

Continue the seeding of crimson clover and hairy vetch as advised in our August issue. Sow both these seeds in mixture with wheat, oats and rye, and then you are pretty certain to get a good cover for the land whether the fall and winter be dry or the frost severe. The mixture makes good grazing and fine hay or green feed. Do not have any bare land wasting fertility during the winter. Crimson clover may continue to be sown up to the end of September, and hairy vetch up to the end of October or even the first of November. Every acre of land covered with one of these crops is an acre of land put into the way of being improved.

Rape may yet be sown for fall and spring grazing for hogs and sheep. If the winter should be a very severe one the rape may possibly be killed out, but with a mild one, it will stand over and make good grazing in the early spring.

Continue the sowing of turnips. They will grow until the end of November, and make much feed for hogs, cattle and sheep.

The corn and sorghum for the silo should be ready for cutting this month. Do not, however, be in too great a hurry to cut it down. The long wet season we have had has forced the growth and made it very succulent, and full of water. It should be allowed to mature fairly before being cut or the silage will be apt to be very sour. Do not rush the filling of the silo. Cut half a day and fill half a day or cut one day and let wilt and then fill the next day. In this way much more can be put into the silo, and the quality of the silage will be better. See to it that the sides of the silo are kept well packed and trodden down, and that the ears are well distributed over the whole surface, and not allowed to accumulate just under the carrier, where they are dropped. When filled or when the whole crop is in, cover with a foot of chaff or cut coarse hay or straw.

Water this freely, and it will pack down and fill with mould and effectually seal the silage.

As the corn becomes glazed and dented have it cut down at the root and set up in shocks to cure. Do not waste time and feed pulling fodder. Utilize the whole crop. It has cost time and money to make it and should all be made into feed for man and beast. Set the shocks up carefully and tie round the top so as to insure their standing. In this issue will be found an advertisement of a shock binder which costs but very little, and will be found most effective in doing the work. Do not make the shocks too large, as the forage is very abundant and succulent this year, and will require a good deal of time and wind and sun to cure it thoroughly.

The repairing and building of sheds and barns for the winter housing of stock should have attention. All barns, sheds and pens should be cleaned plied. The expenditure of a few dollars in paint would add hundreds to the value of a farm.

AN ALFALFA EXPERIMENT.

Editor Southern Planter:

Last August, one year ago I sowed in four acres of meadow land three bushels of Randall grass seed, three pecks of Timothy seed, and one peck of alfalfa seed. My idea was to sow enough alfalfa to inoculate the soil preparatory to seeding down to a full stand of alfalfa; and should the alfalfa fail I would have a good meadow. The seed bed was put in excellent condition. That was my theory. A number of people have wanted to know the result of my experiments, since large operations are depending upon the result.

The seed came up to an excellent stand, almost perfect. When winter came on a good mat of growth covered the soil. When winter was over the stand still seemed good. A very dry spring set in and lasted all through May, cutting the hay crop in the county down from one-half to one-third. The mower was run over the land June 15th, and cut down about one-third of a crop of grass. The alfalfa scarcely amounted to anything. The growth was only about ten inches high and had a yellow, weakly ap-

pearance. The dry weather seemed too much for it; no nodules were found on the roots. Where I had spread some manure in the winter, the alfalfa was but little better. If the season had been good, the alfalfa would have been better, still I do not think the growth would have been satisfactory. There has now been an abundance of rain upon the land for sixty days. There is a beautiful green sod over the land now (August 18th), and it may get high enough for a second crop before frost. The alfalfa appears very much in bunches. In some places it has died out completely. In other places where the soil is richer, the alfalfa stands some twelve to eighteen inches high and is beginning to bloom at this writing; most of the alfalfa still has an unhealthy appearance. I pulled up a number of stalks, and the immense tap roots would break off some eighteen inches below the surface, and still no nodules were found on the roots. As I walked over the field I came to the place where I had burned a small brush pile, and there found a tall, green, vigorous bunch of alfalfa growing where it could get lime, potash, and some phosphoric acid. I pulled the bunch up (with much difficulty) and still found no nodules on the roots. This vigorous bunch seemed to tell me what was wrong with my alfalfa, it needed lime, and possibly some potash and some phosphoric acid. The alfalfa may get the nodules later on, but I have already lost half the stand. I believe I will have to lime the soil before sowing any more. Recently I saw a small field of alfalfa a few miles away, where the soil is very similar to my own, which was limed before the seed was sown in May, and there is a beautiful growth of alfalfa upon the land, and the color is of a healthy appearance.

The results of my experiment so far seems to teach not to sow alfalfa with anything else; second, lime the soil. It might be advisable to inoculate it and fertilize it also with some potash and phosphoric acid. Of course, it is understood that a good seed bed must be made before sowing the seed.

R. H. PRICE.

Montgomery Co., Va.

A few days ago Mr. T. O. Sandy, of Burkeville, called on us and in the course of conversation stated that he now had promise of a splendid crop of alfalfa on a piece of land which he put down in grass two years ago. At that time along with the full seeding of grass he sowed a few pounds of alfalfa seed per acre, thinking perhaps if it made a growth it would gradually inoculate the soil with bacteria

and make it possible for him to secure a full stand of alfalfa, when he plowed up the grass. The alfalfa grew only weakly the first year, but now it has almost completely taken possession of the land, and bids fair to keep it. The piece of land had been limed before the alfalfa seed was sown, and was well fertilized with bone meal at the time of seeding.—
EDITOR.

RAISE SAND VETCH FOR SEED.

Editor Southern Planter:

Green manuring by cow peas, soy beans, crimson clover and sand vetch, has steadily grown in favor of late. The seed of the first three can be bought cheaply enough and in quantity. But the seed of hairy vetch is scarce and high priced, and will continue to be so as long as we have to import it; no matter if it is now admitted free from duty. There is no reason in the world why we should import it from Germany; as good, if not better, seed can be raised in the South, where it is wanted most. I can buy no such vetch seed as I find growing on every ditch bank on my farm now. At one-fourth the price it brings at present it would be a fine money crop for Virginia farmers, far ahead of corn, wheat, oats, or peanuts. If good sand vetch seed could be bought at such prices as we pay for soy beans or cow peas, there would be a great demand for it, because sand vetch can be made a godsend to cotton planters, I can imagine no other plant to fit into cotton raising so well. Sown among the cotton at the time it is laid by it will, after the land has become inoculated, cover the land before winter and thus stop soil washing, and the leaching of nitrates, besides adding combined nitrogen and the vegetable matter to make humus. In fact, it will be an antidote to all the evils of cotton raising, which are so destructive to land. Crimson clover would do nearly as well, but it is extremely unreliable on ordinary cotton soils, being so easily killed by the hot sun and drought just after it sprouts; whereas hairy vetch will stand almost any kind of weather. If it is dry, vetch seed won't sprout until there is enough moisture to carry it through, and a very little of that seems enough. Hot weather won't kill it. It sprouts in June, July and August, just as well as in March or October. There is not a plant on the seedsman's catalogue that will grow under such a variety of conditions. It is a winter plant, like rye, and a summer plant, like corn. The land once stocked with the seeds of hairy vetch will yield vetch plants as it yields crab grass and

cheat. The seeds remain over in the soil until a favorable time comes, then they sprout. They do so any time from March to November. Hairy vetch is one of the most robust plants in existence. It will just suit the "rough and tumble" conditions so common on the cotton plantation. Given a start it will almost take care of itself. Sown among cotton in August it will go to seed the following May, and after seeds have shed, the land may be sown in peas, and when the peas are cut off another crop of hairy vetch will naturally cover the soil before winter. This can be turned down, and no finer preparation can be found for cotton, and certainly none cheaper. Very little seed will be necessary to get another stand of vetch among the cotton, and if it comes everywhere as well as it comes for me, no more seed will be needed once the soil is well stocked with it. In fact, it will come as crab grass and rag weed come—naturally.

Try and persuade your Virginia farmers to raise hairy vetch seed. The only trouble will be at the start. But if sown where the partridge pea grows, it will be inoculated at once, and thus grow off. I very strongly suspect that home raised seed will always inoculate itself as burr clover does. The seed of hairy vetch is rather rough, and is thus capable of carrying the necessary microbes; but the bought seed is polished in some sort of machine, which is about the worst thing those fool dealers could do for us farmers, since that process rubs off the microbes that cause natural inoculation.

The cotton boll weevil will cover this State in four or five years, and will have spread to the Atlantic Coast in seven or eight years. When that takes place cotton cannot be planted on the same field two years in succession, nor in adjoining fields; hence, planters will be compelled to change their methods. They can raise the early varieties of cotton only. That means that they must have richer land than would produce the long-growing, late-maturing varieties. Here is where a crop of vetch may do good, namely, by enriching the idle fields in the cheapest way possible, and after the boll weevil arrives there will be plenty of idle fields. The cotton field of the future must not only be rich to force an early maturing crop, but it must be isolated also—quarantined against the boll weevil. Hence, the planter can scarce plant one-fourth of his land in cotton under the best conditions, instead all of it as at present. Better be prepared for what is surely coming, for the weevil will hit these humid States with lots of wood

land, poor soil, and close settlements far harder than it has hit the new rich soil, drier climate, prairie country, and sparse settlements of the State of Texas.

Several years ago, Mr. J. F. Duggar, of Auburn, Ala., urged the use of hairy vetch in the way indicated, but the cost of seed was an insurmountable bar to its use; yet at a far lower price than it brings now, raising hairy vetch seed can be made just as profitable as peanut raising was thirty-five years ago in Virginia. Only a few farmers went into the business at first, and for many years, and they made big prices for peanuts that seem fabulous now. For all that, and notwithstanding peanuts were grown before the eyes of every one, it took many years of waiting and hesitating before some poor men with large families of small children could see how good a business it was. By raising sand vetch seed Virginia farmers can benefit themselves and all Dixie besides.

JOSHUA FRANKLIN.

Moseley, Ala.

SEED SELECTION.

Editor Southern Planter:

I have noticed numerous articles in the agricultural papers regarding seed selection; but do not remember having seen an article in which anyone suggested a scale of points to govern the selection of any kind, variety, or breed of seed by. Also, notice efforts of farmers (or breeders) to establish what they please to call special breeds of plants, corn being among them.

If a stock breeder makes a specialty of some particular breed of stock he expects to furnish pedigrees with stock sold, and is sure to demand the pedigree with stock bought to keep up the standard of his stock, and it should be thus.

We believe like produces like in animals and also in plant life.

The man who is looking for a horse to trot 2:05 or 2:10 will surely not expect to find him among the Percherons or Clydes, neither would the man expecting to find cows with high milk or butter records look among the Angus or Herefords; so with plants. Don't depend on scrubs or wrong varieties, or breeds. If a breeder of stock wants to improve his herd, he will not accept any kind of animal, some one cares to call by the name of his special breed, but will look carefully after both animal, and pedigree and see that both are right, and he should be just as careful of the seed he plants.

We have always known the different kinds of plants, as different varieties, not breeds. As in corn, we know of Dent, Leaming, Cock's prolific, Hickory King, and other varieties; not breeds.

It is certainly true there cannot be too much care used in seed selection, and I believe that often the difference between proper and improper selection of seed means a loss instead of a profit; all other conditions (such as preparation and cultivation of soil, weather, etc.), being equal.

Many farmers in the selection of seed just don't select, but use anything that comes easiest at planting time. If it is seed corn, or rather corn that is wanted to plant, and, in fact, not seed corn) they go to the promiscuous pile of feed corn left after a winter's feeding, and take most any old thing, and call it seed corn. And so with other seeds needed. They imagine a grain of wheat or corn is a grain of either, and they are right. But are they the right kind for planting

In the matter of the selection of seed corn there are a number of points worth considering after it has been decided as to what special variety is to be planted, and the use to be made of the crop after it is raised. Among them are: What kind of stalk did the ear selected, grow on? Was it 5 to 7 feet tall, or was it 16 to 18 feet long? Was it 1 inch in diameter, or as big as a stove-pipe? Did the ear grow on the stalk 2-12 or 3 feet from the ground, or was it 8 to 12 feet up? Did it grow on a stalk with another good ear, or was it alone? Did it grow in a field where a large percentage of barren stalk were found, or where the stalks all bore good ears? Who can tell what any of above conditions were or the growing history of any ear of corn in a promiscuous pile of ears. Then are the ears well filled at each end with rows straight from end to end, and ear of good size, with large, deep, sound grains of good, positive color (either white or yellow)?

We believe these are essential characteristics, and worth considering. The relative value of each we will not undertake to suggest. Who will?

We believe that the next four to six weeks is the proper time to select seed corn for next year's planting, while the stalk with the ear on it is yet standing in the field with its surroundings in its growth.

Will some of the breeders of corn come forward with a score of points for the *breed* he is specializing in? If he is not ready to do so, it looks as if he should get ready before he declares he has a *breed* that will certainly reproduce itself with rea-

sonable regularity. The American Standard of Perfection will tell you how to judge and select the "Old Dominecker rooster." Why not do the same with any breed of anything you have, if you have a *breed* and not a variety?

Who will select his seed when he can tell what he is getting?

W. A. RANDAUGH.

Powhatan Co., Va.

SORGHUM AND COW PEA HAY.

Editor Southern Planter:

Four years ago I saw in your valuable journal directions for sowing cane and peas. I followed those directions, and have been well pleased with results for four years I have raised this great hay crop.

I regard this the greatest forage a farmer can raise, because it is the easiest to make, the easiest to cure, and all stock love it, and will eat it up clean. It is the best forage crop for Southside Virginia, being adapted to this country because this is not a good grass sections, and we cannot make the hay here that can be made in the Valley. I have sown it four years in succession on one plot of land, one and one-half acres, with each year an increase in the yield. I sow a bushel of peas and a bushel of cane seed per acre. (I would only sow a half-bushel of clean cane seed, but the seed I sow are gotten out by hand on the farm, and are not clean.) I have used each year as a fertilizer, 100 pounds of 14 per cent. acid phosphate as directed in the Southern Planter. I made last year ten thousand pounds per acre, making 7,500 pounds; from the first cutting; and 2,500 pounds from the second cutting. If sowed early you can cut two crops from the same land. If sowed late you cannot, but even then you can get an extra good one.

I feed my driving horses, my work teams and my stock on this hay, and everything on my farm eats it as well as they do any hay. It is far more easily cured than the pea hay alone, and will stand much wet weather. I have had it cut, and a rain to come and rain on it for a week, and then I have raked it, and put up in small shocks, and made good hay. I usually cut it and allow it to remain on the ground from a few days to a week, until the stalks are dry so you cannot wring out any water, I then put up in small shocks, and let remain in these for a week or ten days, and then put up in two-wagon-load stacks to remain until used.



This picture shows my best piece, and it is on the land that has its fourth crop in succession. It was sowed on the 17th of May, and cut the 10th of August, eighty-three days after sowing, and I will cut my second crop from this same place about September 30th.

The crop can be sowed any time from May 15th to August 1st, and makes a good crop to follow wheat or oats. It is far better to grow after these crops than to allow your land to grow up in weeds, as most of our farmers do.

I am informed by a dealer in hay here, that he has imported into Chase City 250 car-loads of hay. Just think what our farmers have missed in not raising this sorghum and pea forage for home use and selling hay, or at least not buying. I have sold some of this pea and cane hay for \$12 per ton, and the parties using it have been pleased. I hope that the farmers in this section will try to raise more diversified crops and not so much of one thing, tobacco, and have to buy their hay elsewhere. If

they will try raising this crop, I am sure they will be more than pleased. I had no experience; I simply followed the directions I saw in the Planter. I never saw the crop growing, but I find it both easy and profitable to grow.

A. T. FINCH.

Mecklenburg Co., Va.

THE CONTROLLING OF WEEDS ON THE FARM.

Editor Southern Planter:

Just how much the weed crop has cost the farmer will never be known, but undoubtedly the value of many farms throughout the country is considerably lowered because they have become overgrown with weeds. The farmers of this State as well as of other sections of the country are beginning to realize this fact more and more, and there is a growing demand for more knowledge as to how the weed crop can be held in check. In some sections meetings are held

annually to discuss this one subject, and in some cases they have passed laws forbidding the sale of farm seed containing more than a given number of certain weed seeds. This has made the price of grass and clover seed very high. Virginia farmers would do well to make use of the natural advantages they have at hand for several years before adopting means of this kind to free the land of weeds.

Many farms throughout the State have become literally filled with weed seeds of many kinds, and on such farms it would not pay to buy clean seed at a fancy price, thinking by this means to decrease the number of weeds on the farm.

The land should first be made reasonably clean, and then it would be a wise thing to try to keep it clean by the use of clean seed, together with careful cultivation.

Which is the best way to accomplish the desired results is a question that presents itself to those who would like to see their farms cleaned of weeds. As a rule, we find that the nearer we can come to putting the land in an ideal condition for receiving any cultivated crop, the fewer will be the number of weeds, not because the weed seeds have been destroyed, but the land has been put in a suitable condition for the cultivated crop to grow to the best advantage, and in this case it simply takes possession of the land, and holds the weeds in check for the time being. On the other hand, if the land has not been put in proper condition for growing the crop there will usually be a correspondingly large growth of weeds.

It is not the intention of the writer to leave the impression that this ideal condition can be reached in a single year; it takes many years sometimes to bring about the desired results. A good system of farming must be adopted whereby the land can be cultivated at different times and brought into different crops quite frequently. There is probably no better way to combat weeds than to adopt some short rotation, and if a liberal supply of farm-yard manure can be used along with this system the land will gradually become more fertile, and in better condition for growing crops.

At the Virginia Experiment Station this spring the growth of weeds has been recorded on some of the ranges that have been under different treatment for one and two years. The results of this work are very interesting, and show in some cases very clearly how different crops and good treatment of the land checks the growth of weeds; yet the nature of our work does not admit of a rotation of crops

that will work to the best advantage in this respect.

The record of weeds was taken from half-acre sections in every case; from this half-acre plat 400 square links were measured off that represented as nearly as possible the average for the whole plat; and from this the total number of weeds per acre was estimated. The number of weeds per acre produced on the farms of the State has not been calculated previously so far as we know, so that these figures will be a surprise to a great many.

After this land has been under treatment for several years it is hoped that another estimate can be made to compare with this one:

The first estimate was made from Section B, Range 25. This land was plowed out of sod in the fall of 1904, and seeded to wheat. Clover was seeded on this range in the spring of 1905. The following spring, 1906, the record of the kind and number of weeds growing on this section was made with the following results:

Per 400 Square Links.	Per Acre.
Oxeye Daisies, 4.....	1,000
Dock, 4.....	1,000
Wild Carrot, 15.....	3,750
Broad Plantain, 32.....	8,000
Sheep Sorrel, 21.....	5,250
Narrow Plantain, 110.....	27,500
Barren Strawberry, 3.....	750
Horse Weed, 19.....	4,750
Flea Bane, 10.....	2,500
Spring Cress, 3.....	750
Total	55,250

Section B, Range 19 was treated in the same manner as range 25, only in this case the wheat land was top dressed with farm-yard manure during the winter at the rate of 15 tons per acre.

The count of weeds was made at the same time as for the other range of clover. The result is as follows:

Per 400 Square Links.	Per Acre.
Dock, 6.....	1,500
Narrow Plantain, 3.....	750
Broad Plantain, 12.....	3,000
Wild Carrot, 22.....	5,500
Horse Weed, 30.....	7,500
Flea Bane, 14.....	3,500
Spring Cress, 32.....	8,000
Barren Strawberry, 16.....	4,000
Total	33,750

The range that was top dressed with farm-yard manure produced one ton of clover hay in the fall after wheat was harvested, while the other range did not produce any hay whatever. This year the yield of hay was considerably greater on this range. Manuring the land in winter after seeding to wheat, thus putting it in a better condition for growing a vigorous crop of clover, resulted in crowding out and destroying 21,000 weeds per acre. What further evidence of the benefit of good treatment for land overrun with weeds is needed

Section B, Range 27 was plowed out of sod in fall 1904, and seeded to cowpeas in the spring of 1905. This crop was plowed under September 1st, and the land seeded to winter barley; this crop was plowed under in spring of 1906, and the land planted to corn.

The number of weeds found growing on the land after the corn came up, was as follows:

Per 400 Square Links.	Per Acre.
Rag Weed, 308.....	77,000
Sheep Sorrel, 5.....	1,200
Smart Weed, 415.....	103,750
Sand Brier, 10.....	2,500
Total	284,450

Section 8, Range 28 was treated in the same manner as 27, except in this case the land was not seeded to winter barley after cowpeas were plowed under; nor was the land plowed in the spring before planting to corn. The kind and number of weeds found growing on the land after the corn came up was as follows:

Per 400 Square Links.	Per Acre.
Smart Weed, 53.....	13,250
Rag Weed, 8.....	2,000
Milk Weed, 4.....	1,000
Sand Brier, 4.....	1,000
Total	17,250

Range 29, Section B, was treated like the others except that it was seeded to winter wheat in 1905 instead of cowpeas. This range was plowed in the fall of 1905, but not in the spring of 1906, before planting to corn.

The growth of weeds was as follows:

Per 400 Square Links.	Per Acre.
Sheep Sorrel, 202.....	50,500
Grass, 14.....	3,500

Rag Weed, 10.....	2,500
Smart Weed, 36.....	9,000
Total	65,500..

Range 27 Section C, was treated like Range 29, Section B, except that farm-yard manure at the rate of 10 tons per acre was applied to this range during the winter before planting to corn. The growth of weeds this spring after corn came up was as follows:

Per 400 Square Links.	Per Acre.
Broad Plantain, 3.....	750
Narrow Plantain, 19.....	4,750
Dock, 2.....	500
Sand Brier, 5.....	1,250
Sheep Sorrel, 106.....	25,700
Grass, 8.....	2,000
Smart Weed, 54.....	13,500
Total	48,450

These results show the greatest number of weeds on Range 27, Section B, where winter barley was plowed under in the spring, and this treatment of the land does not seem to be well suited to the production of corn, for it has been noticed always that the corn has not made the same growth that was made on the other ranges mentioned; hence the better chance for the growth of weeds. On the other hand, the smallest number of weeds was found on the range where cowpeas were simply plowed under.

Where corn was grown after a cereal crop it will be noticed that the smallest number of weeds was found on the range that was top-dressed with farm-yard manure during the winter before planting to corn. In this case the land was also put in better condition for growing a crop of corn. This condition the reader will understand could be improved from year to year by a short rotation of crops and by occasional applications of farm-yard manure.

Section B, Range 5, was plowed out of sod in fall of 1905, and seeded to spring oats 1906. The kind and number of weeds found growing on the land this spring was as follows:

Per 400 Square Links.	Per Acre.
Sheep Sorrel, 134.....	33,500
Foxtail, 152	38,000
Rag Weed, 128.....	32,000
Lamb's Quarters, 36.....	9,000
Oxeye Daisies, 3.....	750
Flea Bane, 1.....	250
Total	113,500

Range 22, Section C, was seeded to cowpeas 1905, and to spring oats 1906. On this half-acre range there was only an occasional weed, the land was practically free of weeds; so much so that it suggested the idea of writing of this article; and I trust that at least a few may gather some ideas that will assist them in controlling weeds on their farms.

P. O. VANATTER.

In charge Field Experiments.

Virginia Experiment Station, Blacksburg, Va.,

This article is an illustration of what valuable work the Experiment Station at Blacksburg is now doing for our farmers. It is going systematically to the bottom of the experiments it is conducting, and getting from them all the information which they are capable of affording. What store of valuable plant food the weed crops of Virginia and the South are wasting. Why not stop this waste of food for man and animals?—Ed.

PEAS AND SORGHUM.

Editor Southern Planter:

Acting on the advice of the Planter, I planted 11 acres in pease and sorghum to help out my hay crop. Being an entire novice in the matter of saving such crops for hay, I would greatly appreciate detailed instructions as to proper time or state of maturity for cutting, best mode of curing and handling, etc. I want to store in a mow in barn. Mow is 20 by 40. Peas and sorghum were sown on the 20th of June, three-quarters of a bushel of New Era peas, and one-quarter of a bushel Early Amber sorghum, mixed, using every other tube of drill. Sowed 300 pounds acid phosphate per acre, using all tubes for phosphate.

Peas are now (August 17th) beginning to bloom and sorghum to head. Both have made a heavy growth. Land was plowed about 10 inches deep, using jointer, and well prepared with roller, disc and spring harrows. Being an admirer of the plain, practical, common-sense advice given the farmers of the country by the Planter, I trust you will help me out in the above matter, and greatly oblige,

AMATEUR.

Orange Co., Va.

In this issue you will find an article from Dr. Finch in which he describes how he saves his crop. This is the proper way to handle it. It should be cut for hay when the sorghum is beginning to head, and the peas are full of leaf and just beginning to

pod. It should be well cured in shocks before being stored in a barn, otherwise it is apt to mould, as the sorghum holds its natural moisture very tenaciously.—Ed.

ALFALFA.

This plant is receiving so much attention that we are receiving more inquiries than we can answer. Since we sell the seed we give a few general rules for growing that must be modified to suit different soils and climates.

Soil.—You must sow on fertile, well drained land, free from acidity and with a soil depth of at least three feet above bed rock, gravel or water. Land where clover heaves is too wet for alfalfa. Clover will grow on a little poorer ground than alfalfa will, but if the subsoil is rich and manure is liberally applied to the surface soil to nourish the alfalfa until it reaches the subsoil it will by far outyield clover. The best alfalfa meadow that we have on our farm is on rolling, fertile, red clay subsoil that extends very deep. Low black soil will produce enormous yields if properly drained, but as a rule, clay will outyield any other. Lime is necessary on acid soil.

Inoculation.—Lack of inoculation prevents success with alfalfa as much as any one thing. The alfalfa bacteria must be present in the soil or the plants will die the first year or so. The Department of Agriculture, at Washington, D. C., or most of the State Experiment Stations will furnish inoculation free, in limited quantities. Also many men now advertise it for sale. We positively will not sell soil from our farm for inoculation purposes. Sweet Clover has the same bacteria as alfalfa and soil from near its roots may be used for inoculation. The very best inoculation, however, is obtained by applying manure from alfalfa fed animals to the fields. Manure is also a great help when you use any other form of inoculation as it helps the bacteria.

Seed Bed.—Plow your land deep and fit very carefully. If possible, apply barn-yard manure before breaking; or else sow nitrate of soda, acid phosphate and potash is also beneficial. Try to choose soil not too foul with weeds or fox tail or crab grass.

Time of Sowing.—Very few in this State have been successful with fall sowing. If you use a nurse crop you must sow at early oat seeding time. If you use no nurse sow about June 10th. If you use no nurse plow the ground just as early as possible, and harrow to save the moisture. From time to

time, or as fast as the weeds start any, harrow it thoroughly to kill every one. Then sow about the first half of June and after that weeds will not bother hardly any.

Amount to Sow—We believe that if you sow 15 pounds of the very best seed per acre, your yield of hay will be about as great as if you sowed more, in this State any way; but we are sure that if you will sow 20 pounds you will have lots nicer quality of hay, especially in the first cutting, and your meadow will last longer before it grows them. The thinner the plants, are on the ground the coarser the stems will be; hence the advantage in having a dense stand.

Nurse Crops—Nurse crops have the advantage, not only of giving you the grain, but of keeping down weeds which would smother the alfalfa and the shade they afford keeps the ground cool and moist. Under no consideration would we say use oats. The barley has a far stiffer straw than oats, few leaves, stools, very little, and comes off the first of July, before it has injure the tender plants any. Oats are almost sure to more or less injure the young meadow.

Sow only one bushel of the barley per acre, at early oat seeding time. Sow the alfalfa at the same time, at the rate of 15 to 20 pounds per acre, covering the seed about an inch.

Tile Drains—Where tile drains have water in them the entire year, especially if they are shallow, the alfalfa roots will in four or five years, completely choke them. Where the drains have water in them only a part of the year they will not be injured.

Seed—Very little seed is grown east of the Missouri river. Northern seed is best. In buying be sure to have a sample from your seedsman before you buy. Choose plump, yellow or greenish yellow seed; the greener it is the stronger its vitality. Avoid brown seed; it is of low vitality. Learn to detect the different weed seeds, and also learn to tell the quality of alfalfa seed so well that you will not only know good seed, but how good it is, and not only bad seed but how bad it is. Remember that some of the "cheap" alfalfa seed is adulterated to the extent of 90 per cent., while some that is not adulterated is of such low vitality that not over 25 per cent. of it will grow. Consider the difference between paying 10 to 25 cents per acre more for your seed and getting the strongest and cleanest seed that there is in the country, and paying less for the seed but getting rotten, weedy stuff that will give you a failure with your crop and seed your farm down to weeds besides.

Remember that cheap seed can always be sold at several times the profit that the higher priced grades bring; the cheaper the seed the greater the profit in selling it.

After the grain has been cut, if the weeds threaten to smother the alfalfa, or if yellow alfalfa rust appears, you must clip it. Once will probably be enough, and if the weeds do not threaten, and alfalfa is thrifty there is no advantage in clipping. Remove all trash, or clipped weeds from the field, to prevent smothering the alfalfa. Do not pasture the first year. Do not tramp in late fall, winter, or early spring. Leave about an eighth of an inch growth in fall to hold the snow and protect the roots.

When making hay do not let it get too dry in swath, as you would clover, as the leaves will all be lost if you do. Rake and cock it pretty tough and cure in cock as much as possible. It will keep better in stack than any other hay; it will stand more rain when curing than any other that there is no comparison. It will yield twice as much as medium clover, and we consider it fully twice as valuable feed, pound for pound, as the clover.

Disking is largely practiced in Kansas, to thicken the stand. There seems to be no bad results from this, and it does split the crowns and help the stand greatly. We believe in the principle, but have not as yet tried it enough to give our experience.

Varieties—We have occasional inquiry for Turkestan alfalfa, as well as for some other varieties. We have tried the Turkestan, and as it was a total failure on our best soil, soil that had always grown good alfalfa before, we abandoned it. It has hair like medium clover, and would, we believe, be injurious to horses on that account. Grimm's Hardy alfalfa, and Sand alfalfa are well spoken of, but we have had no experience with them. Both these varieties are as yet in the experimental stage, and only needed in special localities. The seed is expensive, and we advise to use only the common unless they are sure that they need these new varieties.

J. E. WING & BROS.

The foregoing article, by Messrs. Wing Bros., probably the most successful alfalfa growers in all the eastern section of this country, will answer a great number of inquiries which we have had on this subject. For Virginia, Maryland and North and South Carolina, east of the Piedmont sections of those States, the advice as to time of sowing should be changed from spring to fall, and the crop should be sown without a nurse crop. August and Septem-

ber are the two best months in which to sow alfalfa in the States and sections of those States named, and in those sections it should, if possible, be seeded before the middle of September. In the Piedmont sections of those States it may be most successfully sown in May and June, and then without a nurse crop. We have reports of most successful experiments made with this crop in all parts of the Southern States, where care has been taken to sow on fertile, well-drained land, and where lime has been applied to the soil. There is no reason whatever why alfalfa should not become one of the staple crops of the South, and it is most to be desired of all the leguminous crops, as it is permanent in its character, lasting when once established, for at least eight or ten years, giving a yield of from five to ten tons of hay to the acre each year, and at the same time permanently improving the land.—Ed.

LETTER FROM INDIANA.

Editor Southern Planter:

It was my idea, and is I think the opinion of many Virginians, that though we might do good work in our, and adjoining States, that such a thing as rivalling the middle west, in quality of live stock and up-to-date farming, was a pinnacle beyond our aspirations. They were ahead of us—had everything in their favor, and the only thing for us to do, was to follow at a distance, and aim at the standard they set. Brother Virginians, if you entertain any such idea "forget it." Two weeks ago, I came through Ohio, via. a round-a-bout route, and on to Indianapolis. I looked in vain for things as I had pictured them, as some readers of fiction, go through life, looking for heroes, such as they learn to admire in novels. The magnificent farm teams, perfect beef cattle and marvelous crops were conspicuous because of their absence. The crops and stock were commendable and compared favorably with those in the Shenandoah Valley, but there was no striking contrast, such as one looks for in the ideal. Corn looked well, wheat was shocking well, and the hay crop was perhaps somewhat better than ours. Most of the oats looked as though they would hardly be worth cutting. I find conditions about the same, here in central Indiana. I have had occasion to look at a number of horses since my arrival here as I am buying some good roopty mares for farm work, that will do to breed grade Percherons from. Good ones are scarce and high. Farmers are breeding to excellent sires, but fail to develop good horses, as they breed from any kind of mares, break the colts as two-year-olds, and forget to take the harness off them, until

they are sold or worn out. There are some good standard bred horses here, but no attention whatever, is paid to coach, cross country or saddle horses of either type. There are, however, some extensive breeders and importers of heavy harness and draft horses in this, and adjoining States, doing a most excellent work, in the improvement of the breeds they advocate. So some people—somewhere, in this highly favored country are taking a lively interest in the classes of horses mentioned, as one has only to glance at the markets to be convinced.

Dairying is carried on to some extent around the towns, but very primitive methods are in use. I have seen no pure bred herds of dairy stock, but the cows run fair. A great many cattle are finished here in "feed lots," principally on hay and ear corn. Hogs are bred and finished in large numbers, but it is done on a very extravagant plan. When they are not following the cattle, corn is shoveled out to them in large quantities.

The land as a rule is very rich, but is beginning to show considerable wear in spots. Little fertilizer is used as yet, but the time is not far distant, if the people do not learn to care for the manure and grow more legumes, in the rotation of crops, when the fertilizer man will get his share.

Criticism of my new Western friends, is far from being the purpose of this letter. They are fine fellows and I like them. I write to encourage you, my fellow Virginians, to more earnest efforts, in the production of good stock and upbuilding of your faithful old soil. I want to help you to realize that you are in the race and that you have an "awful good" show to win. As most of you know and appreciate, the Southern Planter has been untiring in its efforts to teach us how to do it, and we should be truly grateful to its efficient staff.

G. P. ADAMS.

STATE HORTICULTURAL SOCIETY.

Winchester, Va., Aug. 7, 1906.

From the most reliable sources obtainable at this date it is estimated that the apple crop of 1906 will be slightly under the average of the last ten years in quantity and slightly over the average as to quality.

The Baldwin crop is light in Michigan, New York and New England; and as Baldwins constitute the bulk of the crop in those sections, the shortage will be sure to affect the market. The Hudson River sections is very light, which ought to make Newtowns and Albemarle a good price. Missouri, Arkansas and Illinois have a fair crop of good quality at this date. Good red fruit in Virginia should bring \$2.00 per barrel, f. o. b. cars at shipping point at packing time.

S. L. LUPTON.

Trucking, Garden and Orchard.

WORK FOR THE MONTH.

The gathering, digging, shipping and storing of apples, pears, late peaches, Irish and sweet potatoes and peanuts will call for constant attention during this and the succeeding month. As fast as the products become mature have them gathered or dug. The longer they remain on the trees or in the ground after they have matured the less likely are they to keep well after being gathered or dug. Pick and dig only when dry, and do not leave them exposed to the sun long after being gathered or dug. Just let them dry sufficiently to be clean and free from moisture and soil. Then as gathered into baskets sort them and throw out all undersized and damaged products, and keep these at home for immediate use for the house or stock. Have all the perfect fruit stored under cover in dry, airy sheds or rooms, not in too great bulk, and let them pass through the sweat before finally storing for use or before shipping. After they have sweated, sort over again, taking out all showing any signs of disease or damage, and put away or ship only the perfect specimens. Ship apples and pears in clean barrels, and have them well packed, and headed up tight, so that the fruit will not shake or settle when the barrels are handled. Apples or pears to be kept at home should be stored in slatted bins or ventilated barrels, in a room where the temperature can be kept above the frost point. Irish potatoes keep best stored in a root cellar, where the frost can be excluded, but where the temperature will be uniform and not over 45 degrees. Or they can be stored in kilns or pies on high, dry ground, covered with straw and boards to keep out the rain until frost threatens, when the straw should have a good covering of soil put on. Sweet potatoes keep best in a house built for the purpose, where the temperature can be kept at or about 50. They should be stored in slatted bins, and be freely ventilated whenever the temperature is high. Be careful to sort out all damaged or diseased tubers, or these will soon infect the whole bulk. When the crop does not warrant the building of a house specially for storing purposes, sweet potatoes may be kept in a dry frost-proof cellar or room, buried in pine tags or dry sand. They should always be well dried off at a high temperature before storing. In a house specially devoted to storing sweet potatoes the temperature may be run up

to 75 or 80 degrees for a few days, after storing, to thoroughly dry them out, and during this time they should be freely ventilated to carry off all moisture, and then be cooled down to 50 or thereabouts. Onions should be pulled and dried in the field for a few hours, and then be stored on slatted shelves in a cool, dry, shed. They will stand a freezing temperature or near thereto without injury when thoroughly cured.

The land should be got ready and the seed be sown for winter kale, spinach and spring cabbage. Winter kale and spinach should be sown in rows where it is to grow to maturity. Sow in rows two feet, six inches apart, and do not sow too thickly. The soil should be made rich so as to induce quick growth. Cabbage seed should be sown in beds to raise the plants. Do not make these beds too rich, as a slow, sturdy growth is what is desired, in order that the plants may be stocky, and well rooted. They should be ready to set out in November in the field. The Early Jersey Wakefield is the best variety to sow. Where cabbage plants for the fall crop have been raised as directed last month they should be set out as soon as big enough, and be pushed by frequent cultivation and manure or fertilizer, so that will head up in November.

Lettuce seed may be sowed for plants to be set out in frames next month, and for plants to be set out in open ground in the early spring. Sow where the plants can be protected with mats or bushes in the winter.

Potato onions sets should be planted out this month. They make the earliest spring market onions. The sets should be planted in rows two feet, six inches apart, and about six inches apart in the rows. Make the soil rich and fine. Seed may be sowed for onion plants to set out in the early spring. Whilst this seed is not always certain to grow, and the plants to stand the winter, yet it is worth the risk of trying, as the cost is small, and if the plants stand, they make a better and earlier start in the spring. Pearl, Prizetaker, Queen, Yellow Danvers, and Southport White Globe are all good varieties to sow. If you have sets of any of these varieties raised as directed in the spring, they may be set out now to

grow on slowly, and get established, and be ready for early spring growth.

Strawberry plants may be set out during this and the following month. In our last issue we gave advice as to preparing the land for this crop.

Clean up all trash, vines and refuse of all kinds from the truck fields and garden, and burn the same, thus destroying insect life and fungoid spores, and plow the land deeply, and seed to crimson clover, or vetch, with a mixture of wheat, oats and rye, where not wanted for winter truck crops.

APPLE AND PEAR BLIGHT.

Editor Southern Planter:

After reading the article by Professor J. L. Phillips, on "Pear and Apple Blight," in your August number, it may benefit some practical fruit-growers to know what I, and, perhaps, others have learned by the best of all teachers—experience—that spraying with the Bordeaux mixture, two to three times in the spring season, just before buds start, before the bloom forms, and after it drops, will prevent apple and pear blight, and make perfect fruit. This is no theoretical hypothesis, or dogmatism, but the simple fact: Spray, and you have no fire blight; neglect, and you do. Nitrate of Soda, applied around the roots of young fruit trees, will also produce a healthy, rapid and vigorous growth.

J. WM. YANCEY.

Culpeper county, Va.

The suggestion as to the use of Nitrate of Soda as a top dressing for young apple and pear trees should be observed with caution. Before the trees are old enough to begin fruit bearing, if their growth is poor, nitrate of soda may be applied, though we would prefer to supply the nitrogen needed with leguminous crops as this is more lasting in its effects. Nitrate of soda is the quickest form in which nitrogen can be supplied to a crop, but it is so readily soluble, and the nitrogen is in such an available form that unless the root growth is active there is risk of much of it being lost by leaching. What fruit trees need is feeding over a continuous period of two or three months, and then rest for the wood to ripen. A slower acting nitrogenous fertilizer is, therefore, usually the best to use for trees. There is risk also in encouraging too quick and sappy a growth in fruit trees, especially pears, as experiments long conducted, have demonstrated that the bac-

teria which produces blight is most virulent in such sappy growths, finding just the conditions needed for its fructification in the ends of these tender growths, and the blooms which are apt to accompany the same.—Ed.

CHEESE MAKING.

Having recently had several enquiries as to the feasibility of making cheese on the farm as a profitable development of Southern dairying, we wrote Professor Saunders, of the Experiment Station, Blacksburg, for his opinion on the subject. We herewith give his reply. Professor Saunders is a practical expert on all dairying subjects, and his views are always deserving of careful consideration and weight. It would seem that where sufficient cows are kept, cheese making should be profitable.—Ed.

Editor Southern Planter:

Yours of the 18th has been received. There would be no difficulty making cheese on the farm. I doubt, however, the feasibility of it. The trouble would be that in making up small batches of milk one would hardly be justified in giving the necessary amount of attention to make a good article. It requires something like six hours of almost constant attention from the time the milk is put into the vat until the cheese goes into the press. So the time to make the cheese would be something like four to six times as long as to make butter. So you see the cost per pound when only a small quantity is made, would be quite an item. Ten pounds of milk will make about one pound of cheese; if milk is extra good, about nine pounds will make a pound of cheese. About 20 pounds of average milk will make a pound of butter, or you get a pound of cheese from about one-half as much milk as is required to make a pound of butter. What cheese we made here a year ago we sold on the local market for about 15 cents. Most of it brought 15 cents. We only got 25 cents for the butter we made, so you see the cheese brought us about twenty per cent. more. Our cheese, however, was of a high-class, better than was generally offered on the market.

We are expecting to make an exhibit at the Richmond Fair, and we hope to have a cheese vat going during the fair, making a batch of cheese each day. I think this will be very interesting to our people visiting the fair.

WILLIAM D. SAUNDERS.

Blacksburg.

Experiment Station, Blacksburg, Va.

Live Stock and Dairy.

TEXAS FEVER TICK EXTERMINATION.

We are glad to know that the Bureau of Animal Industry of the Department of Agriculture is already moving in this matter, as the result of the special appropriation made by Congress to help the South to get rid of this hindrance to its cattle industry. Dr. Cooper Curtice, who has in the past done good service in arousing the attention of Southern stockmen to the importance of getting rid of the ticks by demonstrating that they and they alone are the cause of Texas fever, and that they can easily be got rid of by persistent work for a comparatively short time, has been placed in charge of the work in this State, and has had a force of men detailed for service here. It rests now with the local authorities in each county to say how far they will co-operate in the work. To the extent that they are prepared to co-operate the Bureau of Animal Industry will also co-operate. We are glad to learn from Dr. J. G. Ferneyhough, the State veterinarian, that already several counties have taken action, and given him the means to work in the extermination campaign. These counties will at once be entitled to and will have the help and assistance of Dr. Cooper Curtice and his staff, and the result of such co-operative work will no doubt soon be seen in the release of these counties from quarantine. We hope to learn that every county south of the quarantine line will move in this matter at once, and let us have a united campaign against the tick all through this State. If this be done we can have the whole State taken out of quarantine within two years, and this will mean millions of dollars to the farmers in a few years' time.

THE EARLY LAMB CROP.

Farmers owning a flock of sheep, and all who do not own one ought to do so, for there is no better property on the farm, nor one which seems likely to maintain its value better than sheep, as the demand for lamb, mutton and wool grows larger every day, and increased price seems to be no bar to the insistence of this demand, should now give attention to the subject of breeding the ewes for the early spring lambs. If you have not a good pure bred buck, look out for one at once, and do not wait until all the best have been picked up. Lamb breeders now real-

ize as they have never done before, that a good pure bred buck is an absolute essential if they are to put on the market, the type of lambs which realize the best prices. Whatever breed of sheep you keep, have a buck of the purest breeding, and of fine individuality, even though you have to give an extra long price for him. His lambs will quickly return you the money with good interest on the investment. If you keep a grade flock of ewes probably a buck of one of the black-faced mutton breeds, like the Shropshires, Oxfords, Hampshires or Southdowns, will be the best to buy. These are all prepotent breeds, and the lambs will all be marked by the buck with dark colored faces and legs, and this type of lamb always commands top prices. They develop early, and though they may not be very large for their age are yet always fat, and it is the fat lamb rather than the big, scrawny one which fetches the money. Have a two-year-old buck, if possible, to get one, and then you can have at least two crops of lambs from him before changing, and yet have a buck left to sell for which there will be a demand. Have a buck for each fifty or sixty ewes to be served. See that he is in fine health and vigor before being turned to the ewes. Keep him in a paddock by himself, or with only a few wethers, and see that he has good grazing and a pint of oats and pease mixed every day. Turn him to the ewes only at night, and before doing so rub his breast with red chalk, so that you may be able to see which ewes he has served. The ewes should have a good pasture, and some grain, oats, and peas mixed, are best, every day, to stimulate them, and bring them into heat. Change the pasture frequently. Lamb breeders have made good money in the business for the past two or three years, and we see no reason to doubt that they will do so again. We ought to have several millions more sheep in the country than we have to-day. Help to attain this end. A sheep never dies in debt to his owner.

SALE OF JERSEY CATTLE IN INDIANA. SOME GOOD ONES COME TO VIRGINIA.

Editor Southern Planter:

It may be of interest to Virginia lovers of Jersey cattle to learn, through the Southern Planter, full particulars concerning Mr. A. P. Walker's sale of "Golden Ferns," held August 8th, at Jersey Isle

Stock Farm, Rushville, Indiana. This sale, from many standpoints, was the greatest of its kind ever held in America. The fashionable breeding of the stock attracted buyers from every part of the United States. The animals sold were individuals or descendants of individuals, imported by Case and Walker, in 1900. The offerings were, without exception, in showing condition. The most sensational feature of the sale was the great cow, Rose Fern Rosebud, bought by Col. A. M. Bowman, Salem, Va., to add to his grand herd, at a cost of \$2,600. It will be recalled that Colonel Bowman purchased the sire of this cow over a year ago, for \$10,000. Rose Fern Rosebud is a rare individual, and expert judges do not fault her in any particular. She enjoys the reputation of being the richest bred and highest priced Jersey cow living to-day. Sired by Eminent, and out of Golden Fern's Rose Fern, who is a daughter of Golden Fern's Lad and Brookhill Rose II. The handsome little cow and three of her produce, brought over five thousand dollars at the sale. Col. Bowman also bought some young stock, ten head in all, amounting to \$4,870. Another heavy buyer from Virginia was Mr. A. B. Lewis, of Fredericksburg, who certainly secured some blood and individual merit to be proud of. Other extensive buyers were, Messrs C. E. Parfet, Golden, Col.; M. M. Gardner, Tennessee; J. M. Overton, Nashville, Tenn.; and H. D. Rodman, Shelbyville, Ky. Some of those present, prominent in Jersey circles, were, Mr. W. R. Spann, Dallas, Texas; D. H. Jenkins, of the Jersey Bulletin, Indianapolis; George Sisson, Pottsville, N. Y.; and George E. Peer, owner of the Amelia Ann Herd, Chili, N. Y. The auctioneers were the well-known veterans, Col. R. R. Bailey, Gibson City, Ill., and Col. R. E. Edmondson, Kansas City.

The fifty-seven head of stock brought \$20,905.00, making an average of \$366.47.

Now, a word about Mr. Walker, who entertained us in such a royal manner. The evening prior to the sale we were invited to attend a banquet at the Winsler Hotel, in Rushville, Mr. Walker being our host. Jersey people are accustomed to good things, and this banquet was prepared and served to meet the tastes and whims of the most fastidious. Besides the good things to eat and drink, there were toasts and stories aplenty. The "Sunny South," "Golden West," "Far North," and "Down-East," were all in turn heard from.

Mr. Walker is not only an excellent stockman and capable business man, but a genial good fellow,

possessing true Southern hospitality and just enough love for sport to add spice to life. Aside from Jersey cattle, he breeds a few fine horses. He recently sold a walk-trot-and-canter mare for \$3,500, which is evidence of his success with the equine as well as bovine species. It is whispered that you will be afforded an opportunity to meet Mr. Walker at the Virginia State Fair this fall, and we who already know him, hope he will be on hand.

G. P. ADAMS.

WHAT CONSTITUTES QUALITY IN BEEF PRODUCTION.

Editor Southern Planter:

A definition that embraces everything implied by the term quality would be exceedingly hard to give, for it includes all the desirable attributes in an animal of superior breeding, and what might appeal to one man as quality would not meet with the approval of another, because our standards of good and bad animals vary so remarkably. High standards as to quality are the exception and not the rule, and as a matter of fact, this question has not been studied with as serious intent as its importance merits, for quality constitutes the fundamental essential in the economic production of beef, and where it is lacking satisfactory profits will seldom accrue to the owner. Since it is of such importance, it will be well to consider this point in all its bearings.

Quality is seldom if ever found in the scrub or in any other animal of indiscriminate breeding, and as this is the class of animals predominating in many sections, the practical question is how to improve the offspring of these animals sufficiently at a reasonable cost to make them profitable in the feed lot. This desirable end may be brought about by the use of high-grade prepotent sires. These animals by reason of their breeding and lineage are able to transmit their desirable qualities to the offspring, and through the aid of selection the grade and quality of the animals in a given district can be greatly improved in the course of two or three generations. For the use of the average feeder and handler of beef cattle, high grades will answer every purpose, as they can be produced more cheaply than the pure bred, do not require to be pampered or handled with as great skill and care, and yet will develop a carcass of meat that meets the requirements of the market and makes a profit for both grower and handler as well.

One of the greatest difficulties we have experienced in some seven years of investigation in feeding

beef cattle has been the finding of quality in grade cattle, due to a lack of uniformity in breeding. We have sought diligently for an animal of good blocky conformation and short legs; coarseness of bone, of course, is not desirable. Symmetry as to conformation or outward form and color are both desirable attributes. Animals with long legs, flat in the ribs, narrow in the chest and high in the flank are extremely objectionable. They never make good, thrifty feeders, nor do they take on flesh evenly. Yet it is the uniform development of the carcass that makes the most profit to the butcher, and hence is the animal which is chiefly sought in our great markets.

As an example of the difficulty of finding a uniform bunch of feeders, which all recognize as essential if profitable gains are to be made and a good sale price obtained for the cattle, it is only necessary to refer to the fact that last year in purchasing some 84 cattle for feeding purposes, this bunch was selected out of 150 animals regarded as "tops" in a given community. Even after cutting down the number by one-third, there remained a lot of cattle which varied remarkably in conformation, length of leg, shape and length of body, and the relative development of the fore and hind quarter. The animals are so varied as to color marking as to make then appear on the order of a patch-work quilt when seen out in the yards together. It is impossible to estimate the loss the owners of these 150 cattle suffered by reason of the indiscriminate breeding practiced and the lack of uniformity in the cattle they raised for market. Cattle of this class and character could hardly be said to possess quality in its true sense, and yet a comparatively uniform lot of feeders could be developed from these same dams in the course of two or three years by the use of the proper type of sires and the selection of the best heifers for breeding purposes. It is safe to say that these same cattle if possessed of quality in its true sense would have brought a considerably higher price to the owners and would have been much more profitable in our feed lots.

At the end of an experiment in which some 48 cattle have been fed to a finish, it was quite apparent to any one examining them that there were at least three, if not four distinct types in the lot. The best of these cattle would have topped practically any market in the country; the poorest would have sold as butcher's stock and not of the highest order at that. This matter has been mentioned in some detail, because it is one of the practical difficulties the feeders of beef cattle have to overcome

and it is one they cannot meet successfully until they are in position to raise their own stockers, unless the community in general can be educated to the point where they will make greater efforts to secure pure-bred sires and breed for greater uniformity in type and character in the future. This in the judgment of the writer is the most difficult problem the cattle feeders of the country have to deal with, and it is surely high time, in view of the great progress that has been made in animal industries, that an endeavor be made to educate the mass of our people to appreciate the value of higher standards and more quality in the animals they are raising on their farms.

In an endeavor to convey more clearly to the reader something of what our idea of quality is the following chart has been prepared. This is a copy of a chart giving the method of cutting up beef as practiced by Chicago retail dealers. An animal to possess quality as we interpret it should dress out at least 60 per cent. of its live weight. A 1200 pound steer in other words properly bred and fed will yield about 720 pounds of salable meat. According to the chart this meat would be divided as follows:

Forequarter:

Neck, 24 pounds at 3 cents.....	\$ 72	
Chuck, 130 pounds at 6 cents.....	7 80	
Shin, 50 pounds at 4 cents.....	2 00	
Plate, 112 pounds at 4 cents.....	4 48	
Prime of rib, 68 pounds at 15 cents...	9 52	\$24 52

Hindquarter:

Porterhouse, 92 pounds at 20 cents.	\$18 40	
Sirloin, 34 pounds at 12 1-2 cents..	4 25	
Rump, 28 pounds at 7 cents.....	1 96	
Round, 124 pounds at 8 cents.....	9 92	
Flank, 22 pounds at 4 cents.....	88	
Shank, 24 pounds at 2 1-2 cents....	60	\$36 01

\$60 53

The total amount of meat shown in this instance is 728 pounds worth \$60.53 or about 8.3 cents per pound. If the purchaser were to pay 5 cents for a steer of this character he would not stand a chance to make much money on the transaction, and this point has been notified particularly because it emphasizes the necessity of having animals of superior quality where high prices are expected, for the man who purchases cattle to slaughter must be governed in the transaction by the per cent. of meat he will obtain from the carcass of a given

quality, and as a matter of fact, the larger per cent. of animals slaughtered for beef probably do not dress out over 50 per cent. of the live weight, and on the basis figured would not bring much over 4 cents a pound. While there is probably some justice in the claims of discrimination and unfair prices on the part of our farmers, it is well to bear in mind the fact that when quality is lacking a good price cannot be obtained for any product, and if this truth were more generally appreciated and the direct relation of inferior merit fully realized, probably much greater effort would be made to improve the average of the animals used for the production of beef. It is also well to remember that the steer that will only slaughter out 50 per cent. of useful meat is not likely to be as well developed in that part of the carcass where the high-priced cuts are found as an animal of better blood and breeding which has been fed to a finish.

To return again to the chart for a minute, notice that the value of the meat in the forequarter is \$24.52; in the hindquarter, \$36.01. This explains why an animal with an especially well developed back, loin, rumps and quarters is so much in demand, for it is in this section of the carcass that the high-priced meat is found. Notice, for instance, that the porterhouse is rated at 20 cents a pound the flank and plate at 4 cents, the sirloin at 12.5, and the neck and chuck at 3 and 6 cents respectively. Native cattle and those which have not been carefully selected and improved through the use of high-grade sires are unusually well developed in the neck and forequarters, and are correspondingly light in the loin, rump and flank. Under these conditions it is not surprising that they often appear as a drag on the market and that they never command a good price. It should be equally apparent to the owner that he can not afford to breed and handle this grade of stock, and this lesson would seem less and less difficult of appreciation in the future because of the higher cost of making beef and the necessity for early maturity and high quality in order that a profitable business may be conducted.

There is another way in which to consider this chart which should be instructive to all cattle raisers. Notice that the neck, chuck, plate, flank, shin and shank make up 362 pounds of the weight of the carcass. This represents the front and bottom line, as it were, of the animal and is worth \$16.48. The remaining 366 pounds made up of the ribs, porterhouse, sirloin, rump and round are worth \$44.05, or about three-fourths of the value of the entire car-

cass. In the light of these facts how can any one persist in breeding animals so deficient in the regions from which the highest priced meat is obtained. If a desirable change in conformation could not be effected except at a prohibitive cost, the conditions so commonly observed would not be surprising, but as a good sire, costing say \$200 could be used say on one hundred cows per season, the neglect of this important matter is incomprehensible.

From these figures it is quite apparent that breeding plays an important part in securing quality, for it is only the carefully selected and skillfully bred animal that possesses the desirable conformation which will result in the ordinary grades yielding a slaughtered carcass in which high priced meat is found in sufficient quantity to make a high purchase price justifiable. After breeding, training plays an important part. The best grade calves will not develop into good stockers and feeders and finish off well unless trained to eat at an early date and so managed that they will be kept growing uniformly. Exposure and scant nutrition are to be avoided, for if the animals are stunted and the digestive organs not properly stimulated so as to develop them fully, the animal will not assimilate food as readily and continuously under forced feeding as if kept under high pressure from calfhood to maturity. This is a point that is also worthy of close attention.

Feeding is an important factor in the production of quality. Growing animals should have protein foods and should be supplied with a variety of nourishing and concentrates that will meet the needs of the body, at a given time. It is true that animals will grow and reach maturity under the most adverse conditions, but they always do this at the direct expense of the owner. He may believe that it is unnecessary for him to pay attention to such things as so-called balanced rations which provide the needed elements for the maintenance and development of the body in the right proportions. Skillful feeding so as to keep animals gaining uniformly is another point that must be kept in view constantly. A combination, therefore, of good blood, rigid selection, generous nutrition and skillful feeding are some of the more important factors entering into the production of animals of high quality. The neglect of any one of these considerations is likely to result disastrously, for the skillful feeder who has had experience in rearing animals of high quality knows that his success has

not been achieved through haphazard methods, but rather through the skillful application of the principles of breeding and feeding animals along rational lines.

ANDREW M. SOULE,
Director.

• Virginia Experiment Station.

MONEY IN PIGS.

Our experience in raising pigs has been that we can keep a good sow in perfect condition the year 'round for \$15. This estimates the meal at 1 cent a pound, and includes the cost of pasture, building and everything, except labor. From the average sow we may anticipate eight pigs, if she gives only one litter. That reduces the cost of the young pig to less than \$2. If she gives two litters, it costs somewhere near one dollar per pig. If you add to this \$7, which we say is the cost of finishing a 200-pound pig, you get \$9, the whole outlay. The lowest price for which we have sold this year has been \$10.—Prof. Grisdale Ottawa Agricultural College.

MILKING MACHINES.

Editor Southern Planter:

Your favor of the 18th instant, regarding milking machines has been received. The machine we are using is known as the Burwell-Lawrence-Kennedy milking machine, and is manufactured by the firm, D. H. Burrell & Co., Little Falls, N. Y. The Globe milking machine is manufactured by the Rockhill Foundry and Machine Co., Roanoke, Va. There is still another, the Calfette milking machine, made at Buffalo, N. Y., and another made at some point in Ohio, which I cannot recall at present.

I am only familiar with the Globe and the Burwell-Lawrence-Kennedy. The effect upon the cows udder is practically the same, with these two machines, the difference being in the construction of the teat cups, and the mechanism operating the pulsating device. In my judgment, the machine we have is the better of the two in both particulars. In the matter of the pulsation it is simple and requires less power in that the pipe line furnishing the suction operates the pulsator as well. In the case of the Globe the pulsator is driven by a separate pipe line, which carries compressed air, requiring additional power to compress the air for operating the pulsator, in addition to the extra cost of another

pipe line. While we are getting fairly good results here, I am not ready to recommend this machine yet, and would suggest that anyone wishing to see it, come on here and inspect it in actual operation, and satisfy themselves as to its value in their particular case. I am sure that there are persons in the State who would find this machine a valuable addition to their equipment, and I would be pleased to advise with anyone contemplating installing one of these machines in their barn. A number of persons have been here to see this machine in operation, and every facility has been given them to see it at its best. I think this milking machine has attracted as much attention throughout the State to the work here as almost anything else which has been done for a long time. If it proves to be a practical milker, and I believe it will, it will mean a great deal to our dairymen.

WILLIAM D. SAUNDERS,
Dairyman.

Experiment Station, Blacksburg, Va.

WHAT BREED OF SHEEP WERE THESE?

Editor Southern Planter:

I write you for information. About 35 years ago my father and the other farmers in this country used to keep a large, strong, extremely active sheep, that were absolutely free from disease. They could jump the highest fences and never touch a rail. They were a coarse woolled sheep, part of the lambs were snow white with a goodly number of light brown or what we boys called "red" lambs among them. Their wool would get white, but legs and faces remain light brown or "red" in color. The Bucks of these red sheep were hornless, but a good many of the white sheep would have large horns. They were the most vigorous sheep I ever saw and a number of the ewes would have two lambs and sometimes the ewes would bring lambs twice per year—in the spring and in the fall. I am not sure, but it seems to me that my father called the red face kind "Saxton" breed of sheep.

I would like to know the name of these sheep and if any of your readers know of any such sheep now in existence would they please kindly write me giving the name and address of the people who raise them. In the shearing pens I have seen these sheep jump clear over the top of a mans head 6 feet tall. They were as strong and active as a deer. Please reply through Southern Planter.

Kendalia, W. Va.

O. D. HILL.

At or about time mentioned by our correspondent most of the sheep kept in West Virginia were Merinos of different types. Many of the breeders developed strains of these Merinos and Saxony and Spanish and French crosses and these were locally known by the names of the breeders. The sheep enquired about were probably one of these developed types, but we are unable to locate them though we have looked up the history of most of these crosses. Possibly some of our West Virginia readers may know something of the sheep. We shall be glad to hear from from some of them.—Ed.

BLACK LEG.

Editor Southern Planter:

Allow me to advance, a practical suggestion that may be of use to the Stock raiser's of Virginia; for the prevention of black leg in young cattle, to which disease they are more subject, during wet summers, and the fall months following excessive rain falls, like the present season, when the grass is luxuriant and full of sap. If calves and yearlings are salted, once a week, with the following mixture, they will never have "Black leg, or Bloody Murrain." Do young cattle ever have this disease in a limestone country? It is said they do not; will some one in the Valley or Southwest Va., give us their observations? Here is a *preventive*, not a cure after the animal is attacked, one part air slacked lime, one part green hickory ashes, one part salt, mixed together with a little pulverized sulphur to make up the fourth ingredient. It is also fine for hogs and horses, and those who use it regularly rarely have sick animals and have no need of Blackleg vaccine and Veterinary Surgeons, with all their fees and worry and uncertainty. In this age no mans—"ipse dixit"—is infallible, unless he can prove his assertions; mine are open to trial and criticism.

J.W.M. YANCEY.

Culpeper, Va.

CHEESE MAKING IN THE SOUTH.

Editor Southern Planter:

The Planter for August has come to hand and

I hasten to read its pages, I find it a welcome visitor and of much help in our farming, I am trying to follow its teaching. My short letter on cheese making brought several inquiries. This I am pleased to see. When I think how the dairy farmer in most of our Northern States must plan to make a crop for his stock, and the buildings he must erect at a large cost to protect them from the cold blasts of winter I am convinced by my four years' of experience in this State, that there is a better chance here to make this an ideal dairy country than the North. First our summers are long and pleasant, the winters short and mild, and cool spring water on every farm. Forage of all kind grows here well and Bermuda grass grows freely, and will stand a drouth and close grazing. I also find a growing home market, especially for cheese. I expect to see enough cheese made here to supply the home demand which will mean many dollars to the farmers of the State and these coming at a time when he needs the cash most. The whey is excellent hog food and at the end of the year the cows are still on hand ready for another years service. On an average 100 lbs. of milk will make 12 lbs. of green cheese or 11 lbs. of cured cheese. This sells here at 15 to 17 cents per pound wholesale. At these figures a cow giving 2 gallons of good rich milk will make about 2 lbs of cheese per day. This selling at an average price of 16 cts., will make 30 cts per day or \$9 per month. Where all the feed is made at home as it should be then the cost of feeding will be from 7 to 10 cts per day, taking the year around, leaving a balance of \$6.00 to \$7.00 per cow per month profit. A herd of 10 cows which most farmers here should keep would mean an income of \$60.00 to \$70.00 cash each month. I notice a mistake in my last letter in the Planter. It should read 100 lbs of milk instead of 400 lbs.

C. G. VOIGT.

Easley, S. C.

THE AMERICAN SEED TRADE ASSOCIATION.

Mr. H. W. Wood, of the firm of T. W. Wood & Sons, Seedsmen, of this city, was elected president of the American Seed Trade Association, for the ensuing year, at the convention recently held in Toledo, Ohio.

The Poultry Yard.

PROFIT IN RAISING POULTRY.

E. L. Richardson.

(This article is part of an address delivered by Mr. E. L. Richardson, Institute Lecturer, before the Central Alberta (Canada) Institute meetings.—Ed.)

In order to provide a suitable house for our poultry it is not necessary that we should go to a great deal of expense. The house that I am using is made of two ply of lumber with tar paper between, with shingle roof and tar paper under, and I would not ask for a better house in which to winter poultry in Alberta. Care should be taken in choosing a suitable location for the house. It should be selected where the sun will shine in it all day, should face south, be in a convenient location and on dry, well drained land. Always build so that you can expand your poultry business if found desirable. The essentials in a poultry house are sunlight, fresh air and warmth, particularly the former two. I am inclined to think less of the necessity of having a poultry house warm the longer I am in the business. At the poultry house at the Ontario Agricultural College we used to keep a coal stove going during the winter and I believe we got fewer winter eggs than we would have got without the stove. I have not had my poultry house door shut one day this winter in the day time and have not shut it more than ten nights. In the day time it is wide open and at night a burlap curtain hangs in the place of a door except on the very coldest nights. My birds do not know what a cold feels like and the poultry are as dry and the air as pure as the open. In a house 10 by 12 feet I like a window about 3 by 5 or 6 feet. Provide a regular door for use on the very coldest days and provide a burlap curtain door for general use. Make the house just high enough to prevent bumping your head and have all the fixtures so they can be removed to allow for a thorough cleaning and disinfecting. Place the roosts on a level so that there will not be any crowding for reserved seats on the top round. Make the nests so that they cannot be seen, the hens having to go into them from an alley next to the wall, the nests being at the outer edge of the drop board. Provide a suitable drinking fountain, dust bath and trough to feed soft food. Be careful that your poultry quarters do not become too much crowded in the fall of the year as the young birds grow up. If this is the case the birds will become heated on the roosts at night and will catch cold when they start on their hunt for food in the early morning. A scratching shed on the east or west side of the house about the same size as the house will be a great help. This does not require to be as warm as the poultry house and should only have a burlap curtain front which

should only be down in very stormy weather. Place a burlap curtain also from the wall (not the roof) over the roosts and let this curtain down at nights when it is cold. Suspend the curtain over a tight wire which should run from wall to wall the same way as the roosts about 18 inches above them and far enough from the other wall so that the curtain will come out from the wall over the wire and then drop down to the outer edge of the drop board. In the day time this curtain should be hung up to the roof. Place about six inches of dry clover hay or straw (not too coarse) in the hen house and it will ready to receive the birds.

KIND OF POULTRY TO KEEP.

In the first place pure-bred birds should be kept. There is just as much difference in a scrub hen and a pure-bred hen as there is between a scrub steer which is "all legs and half bone" and the pure-bred beef steer that can easily be put in good condition and will put meat on in parts where it is the most valuable. The pure-bred further has an advantage in early maturity. In Canada there were eighteen million hens and chickens when the last census was taken, less than the sheep stock of Australia, and only one million and a half of these were pure-breds. The sooner pure-breds constitute a majority of the poultry kept in Canada the greater will our profits be.

The breeds of poultry are divided into classes for convenient reference. Three classes under which the most commonly known breeds come are the American, including the Plymouth Rocks, Wyandottes and Orpingtons; the Asiatic, including the Brahmas, Cochins and Langshans, and the Mediterranean, including the Leghorns, Minorcas, Andalusians and Spanish. The birds in the latter class are noted for the production of eggs, they are nervous and as a rule not good table fowls. They take the same place among breeds of poultry as the dairy type does in cattle, which type is good for the production of milk but hard to sell to a butcher. The Asiatic class is made up of the very heavy birds, they are good layers and make excellent table birds, but they mature slowly and are not as good rustlers for food as the American class from which the farmer should select the breed he wishes to keep. As above stated this class includes the Rocks, Wyandottes and the Orpingtons (the Orpingtons are an English breed, but can be classed here with the Americans), which are all general purpose breeds. These breeds mature quickly (although not as rapidly as the Leghorns), lay well and make good table birds.—Reliable Poultry Journal.

(To be continued.)

The Horse.

NOTES

Work is progressing rapidly on the new grounds of the Virginia State Fair Association and when completed the place will present a very attractive appearance, as liberal expenditures have been made on the buildings and track, which are modeled after the latest and most approved patterns. The dates, October 9th, 10th, 11th, 12th and 13th, have been widely announced and the affair promises to furnish pleasure and sport galore for the big crowd expected to gather at Richmond that week. In addition to the fair and races the Richmond Horse Show will be on as well, the former during daylight and the latter in the big Auditorium building at West End Park at night.

The State Fair speed programme includes purses, aggregating \$7,000, for trotters, pacers and runners, and should furnish a series of interesting contests, as good horses will compete in the harness races, while the runners will take part in both steeplechase events and races on the flat. Entries to harness races, close October 2nd. C. W. Smith, race secretary, will promptly answer all communications.

The speed programme follows.

First Day.—Tuesday, October 9, 1906. No. 1, 2.35 trot; purse \$300. No. 2, 2.15 pace; purse \$499. No. 3, running race, five-eighths mile, purse \$200. No. 4, running race, one mile, purse \$200. No. 5, open Steeplechase; about two and one-half miles, purse \$300.

Second Day.—Wednesday, October 10, 1906. No. 6, 2.19 pace; purse \$300. No. 7, 2.22 trot; purse \$300. No. 8, running race, three quarter mile, purse \$200. No. 9, Deep Run handicap; one and one-quarter mile, purse \$300. No. 10, Steeplechase about two and one half miles, purse \$300.

Third Day.—October 11, 1906. No. 11, 2.18 Trot; purse \$400. No. 12, Free for all, trot or pace, purse \$400. No. 13, Running race, three quarter mile, purse \$200. No. 14, Running race, one mile, purse \$200. No. 15, Open Steeplechase, about two miles, purse \$300.

Fourth Day.—Friday, October 12, 1906. No. 16, 2.25 pace; purse \$300. No. 17, 2.30 trot; purse \$300. No. 18, Running race; five-eighths mile, purse \$200. No. 19, Running race; three-quarter mile 10 lbs under the scale, purse \$200. No. 20, Hunters' steeplechase, about two and one-half miles; purse \$300.

Fifth Day.—Saturday, October 13, 1906. No. 21, 2.25 trot; purse \$300. No. 22, Richmond Handicap; one and one-quarter quarter mile, to be ridden by members of any recognized hunt club, or riders acceptable to the track committee; purse \$400. No. 23, Consolation race; three-quarter mile; purse, \$200. No. 24, Open steeplechase; about two and one-half miles, purse \$300.

George B. Goodyear, Charlottesville, Va., has purchased of L. P. Holladay, Staunton, Va., the bay stallion Fitz Lee King, by Kentucky King, 3332, dam Zenobia, by Enchanter, 468, second dam Leonie, by Satellite, 2500, third dam Oneta, dam of Ensign, 2:28 1-2, by Volunteer, 55. As would be expected from his breeding, this horse has finish and good looks, along with style and fine size, being full sixteen hands high and weighing 1,100 pounds. Exhibited by Mr. Goodyear, the son of Kentucky King, was a blue ribbon winner in the class for standard bred stallions at the Charlottesville Horse Show, of 1906. Fitz Lee King was never developed for speed, or the trot, but was driven on the road by Mr. Holladay, his breeder, who owned both sire and dam, which were purchased by him from Powell Brothers, Shadeland, Pa.

The bay mare Primrose, by Willis, dam by Woodburn Hanbletonian, has been sold by Dr. L. B. Hillsman to F. H. Nesbitt, who has bred her to Lord Chancellor. By the latter she produced a bay colt, now a yearling, and owned by Dr. Hillsman, for which several stiff offers have been refused.

R. H. Lee, Hampton, Va., breeder and owner of the bay mare Ethel N., by Whalebone, 7872, has a very promising two-year-old trotter from her, by Pilot Medium, Jr., 2:09 3-4.

T. M. Arrasmith, race secretary of the Central Carolina Fair Association, Greensboro, N. C., has a big stable of horses in training there, of which the younger division includes a couple of promising colts, one a trotter and the other a pacer, both sired by Allerton, 2:09 1-4, dam Maggie Campbell, 2:21 1-4, by Pamlico, 2:10.

BROAD ROCK.

Miscellaneous.



The Mansion at Morven Park.

MORVEN PARK.

Morven Park, by Leesburg, in Loudoun county, Virginia, is one of the most beautiful old estates in the South. Originally owned by Governor Swan of Maryland, it is now the property of Westmoreland Davis, Esq., who is converting it into one of the most magnificent stock farms in the East. Though a practitioner at the New York Bar, Mr. Davis is a native Virginian with a most decided taste for country life and a great fondness for fine stock. It is not surprising, therefore, that we find him in possession of this splendid estate, which he purchased some three years ago. In establishing the Morvern Park flocks and herds, he has very carefully studied and planned every step that he has taken, formed his own ideals and is now securing marvelously good results. In the first place, the old fields had to be renovated and brought under proper rotation; old buildings had to be repaired and altered to suit the new conditions which were to obtain at "Morven." All of this has been and is being accomplished by the most rational and economical methods. Field after field has been plowed deeply, limed, and put into cow peas, the only fertilizer used being acid phosphate. The peas are cut early for hay and allowed a second growth, which is turned under and then followed by other

crops in proper rotation. This simple system is bringing the land up to a high state of fertility so it will produce practically everything wanted. One instance which impressed the writer, particularly was a large field of clover, (waist high and thick as possible) where no stand could be gotten before. This is in accordance with a statement made by an old hand who had worked for Governor Swan thirty-five years ago.

Very naturally on so large an estate, there were to be found numerous barns, buildings, sheds, etc. These, Mr. Davis is altering and repairing to suit his purposes. This is being done with two ideas in view, viz: Health and comfort of his stock and convenience—and the work is being done by his regular hands! Take the cow barns for instance; the sides were knocked out of the buildings and numerous windows put in instead: King's system of ventilation installed and the floors were concreted without an extra cent added to his pay roll. These cow barns are models of sanitation and convenience. The rows of stalls face each other; the center aisle has a concrete floor with a high ridge in the middle. The space at the base of the ridge serves as a splendid manger. There is, of course, a drain in the rear of the animals, which carries off the liquid manure to a cistern—cess pool. As the



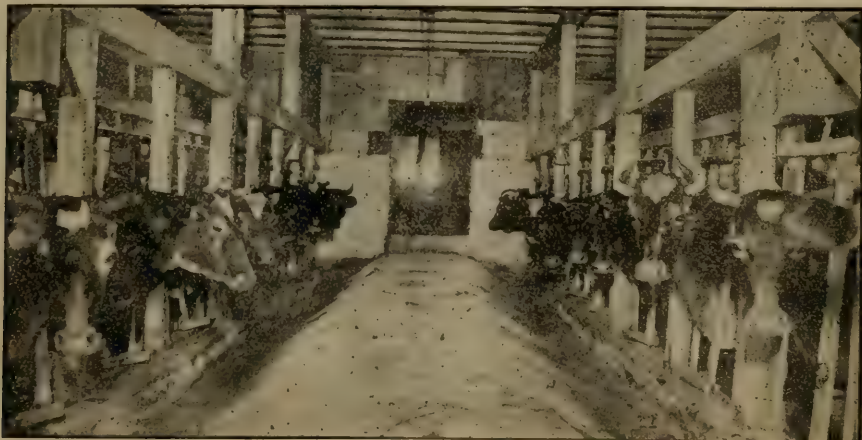
Cow Barns and Silos at Morven Park.

manure from all buildings is hauled out to the fields each day, the cart stops at the cess pool and the load is saturated with this liquid by means of a pump. All the barns have concrete floors and side walls and are flushed with water just as soon as the cows are taken out and are, therefore, clean and sweet!

The first thing most likely to impress a visitor at "Morven" is the fact that everything is done in a simple and economical way with a view to having all stock in perfectly natural conditions. Mr. Davis believes that this is the best way to raise healthy, vigorous and useful stock and he is right. His operations, while on a splendid scale, are an excellent object lesson inasmuch as they

can be duplicated on practically every farm in Virginia. It is not so much the money he is spending, but the practical use he is making out of the material he has at hand. Another instance of this is the fact that whenever he gets his farm work well in hand, he puts his men at road-building. At the rate he is progressing, it will not be long ere macadam roads will intersect the entire estate.

Before going into pure-bred stock raising, Mr. Davis studied the merits of the various breeds and finally settled upon Guernsey Cattle, Large White Yorkshire Hogs and Dorset Horned Sheep, and incidentally, Percheron Horses. His Guernsey herd has been recently augmented by a direct importation of some fifty-one head and now numbers about



Interior View of a Cow Barn.



Imported Guernsey Bull, "Top Notch."

one hundred. His stock bulls are Imported Top Notch, Mainstay's Glenwood Boy and France's Jewell 8th, the latter a recent importation. This Bull belongs to the famous La France family and was a member of the first prize herd in the Island of Guernsey last year, and naturally Mr. Davis is expecting great things of him.

The cows are representatives of the Honoria, May Rose, La France, Glenwood and other noted families. Individually, they are a splendid lot, large and brawny, many of them showing Shorthorn size. As performers, a great number are in the advance registry, and others are formidable candidates, while the entire herd averages over 5 per cent. butter fat. The herd is tuberculin tested semi-annually, in the meantime a Veterinarian calls at "Morven" weekly to look after the general health of all the stock.

The Yorkshire Herd numbers about a hundred and fifty and is entirely imported or immediately descended from imported stock direct from such well known breeders as Mr. Saunders Spencer and Mr. Arthur Hiscock, of England.

All are in splendid, thrifty condition. Not a hog on the place shows the slightest sign of sun-scaled or scurf though they have absolutely free range.

At the head of the herd are the two imported Boars. Holywell Huddersfield, winner at the Yorkshire (Eng.) Show, and Holywell Hatfield 2d. The former is a half-brother to Holywell Daily, who won ten prizes and a championship in 1904, also (on his

dam's side) to Holywell Czech 2nd, second prize winner at the Royal in 1905. The prepotency of this Boar is evidenced by the fact that one of his sons was bred to a pure-bred Berkshire sow and she littered 11 snow white pigs.

The sows represent the Miss Hollingsworth and other celebrated strains. Individually they are splendid specimens. Sweetest Polly, for instance has littered seventeen pigs while Sweet Polly comes a close second with fifteen. It will be seen, therefore, that prolificacy is one of their foremost traits. Mr. Davis thinks this breed will make as good a record in this country as it has done in Canada, when its merits become better known. Across the border, there are more than twice as many Yorkshires registered as all other breeds put together. In 1892 they were about equal. In 1890 Canada exported \$645,000 worth of hog products; in 1900 \$12,803,000—an increase of over twelve million in ten years, over 2400 per cent., while the United States shows a decrease of 7 per cent. for the same period.

Three pigs, including a fine prize Boar, are now en route "Morven" from England. So Mr. Davis is preparing himself amply for the steadily increasing demand for Yorkshires.

The Dorsets are a splendid lot. Mr. Davis has succeeded in developing a large sized close woolled sheep of good length and close to the ground. At the head of the flock is a fine Ram who took the first prize at the Royal. By the way, he sheared 17 1-2 pounds of wool last Spring. Among the

breeding ewes are sixty which were imported direct from the flock of W. R. Flower, Esq., of Dorchester, England.

Sixteen more, fifteen ewes and one ram, are expected in quarantine shortly, from the same source. The ram, a beauty, took 1st prize this year at the Bath and West of England show, Dorset county.

When you say this, you say all that can be said in favor of these sheep, as Mr. Flower is recognized as the fountain head for Dorsets. It strikes us that he now has a pretty strong rival in "Morven Park."

By way of precaution, the entire flock is given the gasoline treatment at regular intervals. The shepherd takes along a bottle of ammonia which instantly revives any that may become strangled.

Mr. Davis is also farming the adjoining estate known as the "Big Spring Farm," owned by his sister, Miss W. L. Inman, of New York. Here he is establishing a dairy along the same lines as at "Morven." Here also is his Percheron Stud, consisting of the French Government Premium Stallion, Vibraye and nine imported mares. This stallion is a son of the famous Besique and traces twice to the highly prized brilliant blood. All of these horses were personally selected by Mr. Davis and are most excellent specimens of the breed.

All in all Mr. Davis is doing a splendid work for pure bred stock in the South and deserves the hearty support of our farmers. He is not only demonstrating the profitability of pure bred stock but he is showing how it can be handled economically under the average prevailing conditions. And just one more thing to the everlasting credit of Mr. Davis is the fact that he requires his men to handle all stock as gently and quietly as may be, and his orders are carried out to such an extent that there isn't a Bull, Buck or Boar on the place that won't come up to you to be patted on the head.

We acknowledge our very great indebtedness to Mr. Davis for the generous hospitality of Morven Park and esteem it a great privilege to have inspected his splendid establishment.

B. M. S.

A SHORT HISTORY OF "THE BOARD OF TRUSTEES OF THE MARYLAND AGRICULTURAL SOCIETY FOR THE EASTERN SHORE."

Editor Southern Planter:

This Society was originally formed under the name and style of "The Maryland Agricultural Society" and was organized in 1818, according to its Articles of Association.

Among its original Members were the following gentlemen, viz.: Col. Edward Lloyd, Governor of Maryland, in 1809-11, of "Wye House"; Dr. Nicholas Hammond, of "Saint Aubin," Talbot county; Tench Tilghman, of "Plimhimon," Talbot county; Hon. Robert H. Goldsborough, of "Myrtle Grove," Talbot County; Thos. Hayward, of "Locust Grove," Talbot county; Col. Henry Hollyday, of "Ratcliffe," State Senator 1818-19, Talbot county; Samuel Stevens, of "Compton," Governor of Maryland, in 18-22, Talbot county; Col. Daniel Martin, of the "Wilderness," Governor in 1828 and 1832, Talbot county; Henry Hollyday, Jr., of "Readbourne," Queen Anne's county, Maryland; William Henry Decourey, of "Cheston," Queen Anne's county, Maryland; Col. Nicholas Goldsborough, of "Otwell," Talbot county, Maryland; General Perry Benson, of "Wheatlands," Talbot county, Maryland; Robert Banning, of "The Isthmus," Talbot county Maryland; Samuel T. Kennard, of Easton, Maryland, and many others from the several counties of the Eastern Shore of Maryland.

At a Special meeting held in the city of Baltimore, on the 23d of June, 1823, the Constitution was amended; and it was adopted in its amended form at a meeting held in Eastern on the 25th of November, 1823, and agreeably to its provisions, "The Board of Trustees of the Maryland Agricultural Society for the Eastern Shore" was instituted, by the election of the following gentlemen, as Trustees for the ensuing year, viz: Edward Lloyd, Samuel Stevens, Tench Tilgham, Perry Benson, Nicholas Hammond, Robert Moore, Robert Henry Goldsborough, Daniel Martin, Thomas Hayward, Henry Hollyday, Lambert Reardon, Samuel T. Kennard, all of them citizens of Talbot county, Maryland.

On the 5th day of December, 1825, the first meeting occurred at the seat of a Member of the said Board, to-wit: at "Wheatlands," the seat of Gen'l Perry Benson, and the following members were present: Henry Hollyday, Tench Tilgham Nicholas Hammond, Samuel Stevens, Tench Benson, Nicholas Goldsborough, Nicholas Hammond was elected President and Samuel T. Kennard, Secretary.

By Virtue of vested authority, the members have filled the vacancies, as they have from time to time occurred in the Board, and have preserved it, in unbroken existence to the present time.

Since the institution of the said Society, there have been members of the said Board, the following Gentlemen, viz.: Edward Lloyd, the father of

the present Col. Edward Lloyd, of "Wye House"; Judge Richard Bennett Carmichael, of Queen Anne's county; Admiral Franklin Buchanan, of "the Rest," Thomas Hollyday, of "Lee Haven," Talbot county; Capt. Edward L. F. Harcastle, of "Plain Dealing"; Col. William Hughlett, of "Galloway"; David C. Trimble, of "Wye Heights"; Col. Richard C. Hollyday, Secretary of State, of "Ratcliffe-manor"; William M. Hollyday, of "Glenwood," Talbot county; Col. Thomas Hughlett, of "Ingle-side," Talbot county; Dr. William Henry DeCourcy, of Cheston, Queen Anne's county; Dr. Isaac L. Adkins, of "Woodland," Talbot county; Tench Tilghman, father of Col. Oswald Tilghman, of Easton, Maryland; Dr. John C. Earle, of "Brookletts," Talbot county; Col. Kennedy R. Owen, of "Hawks-worth," Talbot county; Col. Hambleton, of Easton Maryland; Mr. William Goldsborough, of Myrtle Grove; Mr. James N. Goldsborough, of "Woodstock"; Col. Matthew Tilgham Goldsborough, of Otwell, and many other prominent gentlemen of the Eastern Shore of Maryland, who were both prominent in Agriculture and State affairs.

The present members of the Board, are:

Col. Edward Lloyd, of "Wye House," Talbot county, Maryland; Dr. William Henry DeCourcy, of "Cheston" on Wye River, Queen Anne's county, Maryland; Mr. Matthey Tilgman, Goldsborough, of "Otwell," Talbot county, Maryland; Dr. Charles H. Tilghman, of "Grosses," Talbot county, Maryland; Col. F. Carroll Goldsborough, of "Canteberry," Talbot county, Maryland; Col. Oswald Tilghman, "Secretary of State, of "Foxley Hall," Easton, Maryland; Mr. Charles Howard Lloyd, of "Wye House," Talbot county, Maryland; Mr. William H. Hadkins, of Easton, Talbot county, Maryland; Col. Henry Hollyday, of "St. Aubin," Talbot county, Maryland; Mr. Louis Jones, of "Wye Heights," Talbot county, Maryland Mr. MacKenzie Goldsborough, of "A'Mere," Talbot county, Maryland and Mr. Preston B. Spring, of "Harleigh".

It is a singular coincidence that nearly all the present members are descendants of the original Trustees.

Four of the names mentioned, have been continuously in the Board since its formation, in 1823. viz:

"Lloyd, Hollyday, Tilghman and Goldsborough"

Where else in this country can you find an Agricultural Organization, composed of the direct descendants of those gentlemen who tilled the soil nearly a hundred years ago, and whose present

members are to a great majority, to-day, living on and tilling the same soil?

And further, they are the direct descendants of men prominent in the Early History of the Province of Maryland.

Col. Edward Lloyd, is the Direct Descendant of Col. Edward Lloyd, who was a member of the Provincial Council and Governor of the Province of Maryland, in 1709-13.

Mr. Matthew Tilghman Goldsborough, Col. F. Carroll Goldsborough and Mr. MacKenzie Goldsborough are descended directly from Matthew Tilghman, who was President of the Council of Safety 1774-76, and also of Col. Tench Tilghman, who was Aide-de-Camp to Gen'l. Washington, and they are also the direct descendants of other prominent men of Maryland.

Dr. Charles H. Tilghman, of Grosses, is a direct Descendant of Col. Richard Tilghman of the "Hermitage," and of Gov. Edward Lloyd.

Col. Oswald Tilghman, is a great grand son of Col. Oswald Tilghman, Washington's aide-de-camp, and also is descended from Matthew Tilghman, and Col. Richard Tilghman, of "The Hermitage."

Mr. Charles Howard Lloyd, is the son of the present Col. Edward Lloyd, of Wye House, and besides being descended from his fathers' long line of prominent men, is also a great grand son of Gen. John Eager Howard.

Col. Henry Hollyday, is the great great grand-son of Col. James Hollyday, of "Readbourne" Queen Anne's county, Maryland, who was a member of the Provincial Council, his son, Henry Hollyday, of Ratcliffe," who was a member of the Convention that ratified the Constitution of the United States. Col. Hollyday is also descended from Col. Richard Tilghman, of the Hermitage.

Mr. William Hughlett Adkins is a grand son of Col. William Hughlett, who was President of the Maryland Senate in 1819, and son of the late Dr. Isaac L. Adkins, a prominent agriculturist of Talbot county.

This Society is the oldest Agricultural Association in the State of Maryland, and has been more than once honored by the presence of His Excellency, Edward Warfield, the present Governor of Maryland.

That Governor Warfield recognizes this Board as an important one, is shown by his selecting certain of its members for positions of honor in the State Government viz:

Col. Edward Lloyd, as a member of the Board of the 2nd Hospital for the Insane.

Col. F. Carroll Goldsborough is one of the Trustees of the Maryland Agricultural College. Col. Oswald Tilghman as his Secretary of State, and Col. Henry Hollyday as one of his military Aides-de-Camp.

Gov. Warfield is often a guest at the monthly meetings and entertains the Society at the Government House at Annapolis.

The records of the Society show that the Southern Planter was read by the members of this Society as far back as 1848, and Mr. Ruffin a former editor of The Planter corresponded with Mr. Matthew T. Goldsborough, the then President, and sought his advice, in the interest of Agriculture. Today the Southern Planter comes regularly to the members of this Ancient Society and is considered a valuable acquisition.

A. SUBSCRIBER.

August, 1906.

POULTRY AT THE VIRGINIA STATE

Exhibit Your Fowls.

Editor Southern Planter

Every one cannot be a winner of a first prize but there is credit in obtaining a second or third; therefore if a breeder has good fowls it is just as well to exhibit them and take chances. He can thus see where he is failing and may do better another year.

Some do not exhibit on account of lack of confidence, in the result of their labors, whilst others think it does not matter any way, and many choice birds never find their way to a show room. We are after just such breeders as these. We want them to come to the Fair with their best birds and show some of our prominent breeders that there are choice birds on the farm bred by persons unknown to the public as fanciers or breeders. We have sometimes known the timid and fastidious young fancier who believed his own birds were only second rate and had no idea he could successfully compete with the old breeders, whose stock he knew would be exhibited to go home with the blue ribbon on his birds. Any breeder may do this and such good fortune not only astonishes the exhibitor, but his competitors wake up to the fact that other people have prime fowls now and then as well as they.

Enter your best fowls at the coming State Fair. This is the proper thing for every breeder to do. He may gain by it and in any event he will help along the Fair.

S. S. STANSBURY,
Manager Poultry Department,
State Fair.

AGRICULTURE IN THE PUBLIC SCHOOLS.

Editor Southern Planter:

The march of progress in America has been coterminous with the development of our agricultural resources. What other incentive should we need to foster an industry that has played such an important part in our national welfare? Yet, strange to say the teaching of agriculture has been shamefully neglected, until we find great areas of country but little better than waste land, and in many sections abandoned to the agencies of nature. Do we fully realize what has brought about this startling condition of affairs? If not, should we not come to the consideration of a question fraught with such vital import to the future welfare of our country? Is not the condition portrayed, and which may now be too frequently witnessed throughout the length and breadth of this great country the result of the ignorant cultivation of the soil, the pursuit of the methods of the soil robber, the destroyer of the wealth, and the beauty, and the splendor that were garnered into the bosom of nature by the physical agencies of centuries now remote? Such are the conclusions reached by those who have given diligent consideration to this important subject, and is it not high time that some definite action was taken looking to the amelioration of an agricultural practice that has brought about such dire results? Is it not time that some effort was made to instill more rational ideas of culture into the minds of those who are to be the future tillers of the soil and the bulwarks of the country in time of peace and war alike? The conditions which we now face are the result of hasty and indifferent practice, due to the cheapness of land in a country so great as ours, and to the fond belief, which is the delusion of childhood and old age alike that one can get something for nothing, or take something from nothing and have something left. The condition of our agriculture is a matter therefore that merits the attention of our educational leaders, for there is no subject which has been so utterly neglected in the past and there is none worthy of greater attention in the future.

Agriculture at best is an applied science, and the inculcation of the truths that govern correct scientific practice, finding their foundation as they do on a number of fundamental sciences, will do more for the permanent welfare and advancement of a large per cent. of our population than any other form of instruction that can be provided in our rural schools. But the teaching of agriculture, having to do as it has with the growth, development and utility of

plants and animals, with the relation of the elements of the soil to cheap production, and the beautifying of the face of nature, should not be confined to the rural schools. Agriculture properly taught can be made a culture study and used to develop the mind as effectively as the study of history, mathematics, or even the classics. The useful man is the man who can do things; the man who has been so trained that he can use both the mind and the hand intelligently, and while the writer is an earnest advocate of higher education in all its phases, our school curricula are often outlined by those having a rather one-sided view of what constitutes true education, and as a result many subjects have been set aside that are peculiarly valuable because of the varied and enlivening mind training they provide along with the training of the hand. The skillful control of the various organs of the body is after all education in the true sense of that word. To say, therefore, that agriculture has no cultural value, that it cannot be incorporated in the curricula of the public schools advantageously, or taught with ease, with profit, or with delight and satisfaction to the children is to admit ignorance of the fundamental principles of the applied sciences which constitute agriculture, and it is this that has caused the many so-called failures to make agriculture an interesting, attractive and valuable feature of the curricula of our public schools.

There is no subject that lends itself more readily to the needs of the teacher, and it would be a comparatively simple matter to provide a suitable course of instruction for the training of teachers in school gardening and the application of the elementary principles of agriculture, plant life and soil knowledge in a manner that would enable them to make this one of the strongest, most useful and attractive educational features of the work of our public schools. How this might be brought about may be considered more particularly and to better advantage in another paper. The progress made in several States shows that with suitable text books and properly inspired teachers agriculture can be taught successfully, and this is enough for us to know at the present time. As to the grade in which the subject should be taught, the third to eighth for town or city schools would seem to be the most desirable, and it should constitute at least a weekly exercise for all pupils in rural schools. It may be taught in connection with animal studies, including insects, birds, quadrupeds, etc., or as an adjunct to physical geography, or it may be taught as a separate study, which would be better and preferable always. It should be a beginning study and

greater progress will be made if the child has not acquired his notions of animals and plants from books. Let him learn in the beginning to analyze the plant for himself, to study the functions of its various parts, and their relation to the ultimate development of the plant or animal, as the case may be, and in this way he can reason out for himself the many useful lessons that plants and animals teach. Most of us go blindly through life; we do not understand or appreciate the beauties of nature; we do not enjoy the thousand and one wonderful creations which are placed here for our enjoyment, because we have never been taught in youth to know and appreciate these things. How much more enjoyment there is in life to the person who finds something new and interesting in every phase of nature.

What a beautiful study agriculture, or nature study, as some prefer to call it, may be made. How important it is to know the plant feeds, to understand that the plant is a living creature, that it has organized parts, that it lives, breathes and moves, and has its being very much as we do; that it lives its little circumscribed life, serves its useful function, produces seed, and disappears very much as the human being. What a difference it would make to all of us, and particularly to the boy and girl who grows up in the country, if we understood the true functions of plants and animals, the uses of the various organs, the processes by which life is sustained, and the relation of various elements of plant food to the development of certain organs of the plant and animal. If all the boys and girls growing up in our rural districts understood how to manage plants and animals intelligently, how to develop the most useful qualities and eliminate the unsatisfactory traits through selection, and the intelligent fertilization and cultivation of the land, what a marvelous improvement would be effected, not only in the quality of the soil and its crop producing capacity, but in the resulting plants and animals which are raised thereon. The faculty of observation would be fully developed in these boys and girls and they would become familiar with a hundred useful facts that now go unobserved, and that their forbears looked upon with incredulity and regarded as scientific absurdities. What a penalty we pay to ignorance of the things by which we live, move and have our being. Surely, the teaching of a subject so fraught with vital concern to millions of human beings in our own country should not be neglected any longer, and especially as it is such a simple, practical and satisfying subject to pursue.

There is now no serious obstacle to solve in order

that agriculture may be introduced and taught with success in all our schools, both urban and rural, as it has been fully demonstrated that teachers can be trained and educated so that they can impart the principles of this important subject in an interesting and helpful manner to their scholars. In view of these facts, the solution of this question is a comparatively simple one. If all those who should realize its importance will put their shoulders to the wheel, the riddle can be quickly solved, and the benefits are so patent and the rewards so great that no sacrifice should be too severe to attain an end so desirable and fraught with such helpful influences to so many who are now groping along in darkness because they were not afforded the opportunity of obtaining instruction in the fundamental principles of their life-long occupation when the mind was young and tender and receptive to the teachings of nature.

ANDREW M. SOULE.

Blacksburg, Va.

THE VIRGINIA STATE FAIR, RICHMOND.

The work of laying out and preparing the grounds and track, and the erection of the buildings and sheds is being pushed on with all possible speed, and everything promises to be in order in ample time for the exhibits. Entries of live stock are being made daily, and already there is promise of the finest exhibit ever made in the South. We desire to urge upon farmers all over the State that they join heartily and work for the success of the Fair. There is going to be a large attendance of out-of-State visitors, and we want them to be impressed favorably with the products of the farms of the State. See to it that each section of the State is well represented at the Fair by the best of its products. The premiums offered are liberal, and worth an effort to secure, but more than the premiums is the importance of favorably influencing the people from other sections to cast their lots with us. The premium lists are now being distributed. If you have not got one, send to the secretary, whose address will be found in our advertising columns, and ask for one, and then see how many entries you can make and *make them*. The people of Richmond have put up the money to make the Fair possible. It is as little as the farmers can do to show their appreciation of this action by sending their products and stock, and by coming themselves, and bringing

their families to enjoy the sights. There is going to be plenty of amusement for every one, in addition to the Fair proper, and we hope to see the people show their appreciation of the efforts of the management to make the Fair a success by coming here in thousands.

FARMING IN GEORGIA.

Editor Southern Planter:

When I read of the fine crops of hay and grain, and the live-stock of Virginia, and of your method of farming with improved farm implements, I get disgusted with our Middle Georgia methods, which consist of a negro, mule, and a single plow, with cotton almost the only crop.

The whites control politics, but the negro controls the labor. Negro labor is high, trifling and scarce. All he wants is to rent. Renting land is getting to be the rule rather than the exception.

Many farmers and their sons are leaving the farm and going to town, doing menial jobs, renting their farms to negroes rather than adopt improved methods of farming and living independently.

High-priced cotton has put "Cuffie" where he can get a mule, and the cotton factor will advance three times the worth of the mule and take chances on the balance. In many militia districts in Middle Georgia there are not more than half a dozen white men left. Large land owners do well on 10-cent cotton by renting, but it will not do for the medium farmers. This method will ruin the land and keep down enterprise. I have done well on 600 acres of land, but as my hands have demanded that I shall rent to them, which I will not do, I see no other plan but to adopt improved farm implements and make less cotton, substituting more hay, grass, stock, etc. Under such a system I can greatly improve my land. Relying on The Planter and other papers of its kind, which I take, I think I can succeed.

MIDDLE GEORGIA FARMER.

Columbia Co., Ga.

THE Southern Planter

PUBLISHED BY

THE SOUTHERN PLANTER PUBLISHING CO'Y,

RICHMOND, VA.

ISSUED ON 1ST OF EACH MONTH.

J. F. JACKSON,

Editor and General Manager.

B. MORGAN SHEPHERD,
Business Manager.B. W. RHODES,
Western Representative
1714 Tribune Bldg., Chicago, Ill.

MANCHESTER OFFICE:

W. J. CARTER,
1102 Hull St.

ADVERTISING RATES

will be furnished on application.

THE SOUTHERN PLANTER is mailed to subscribers in the United States and Canada at \$6c. per annum; all foreign countries and the city of Richmond, 76c.

REMITTANCES should be made direct to this office, either by Registered Letter or Money Order, which will be at our risk. When made otherwise we cannot be responsible.

SUBSCRIBERS failing to receive their paper promptly and regularly, will confer a favor by reporting the fact at once.

WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. Criticisms of Articles. Suggestions How to Improve THE SOUTHERN PLANTER, Descriptions of New Grains, Roots, or Vegetables not generally known. Particulars of Experiments tried, or Improved Methods of Cultivation are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of post.

NO ANONYMOUS communications or enquiries will receive attention.

Address THE SOUTHERN PLANTER,
RICHMOND, VA.

ENTERED AT THE POST-OFFICE AT RICHMOND, VA., AS SECOND-CLASS MATTER.

PUBLISHER'S NOTES.

To Advertisers.

Be sure to send in your copy or instructions on or before the 25th of the month for the following month's issue. This is imperative.

I subscribe to five agricultural papers or periodicals, but The Southern Planter suits me infinitely better than any of them.

H. SAUNDERS.

BANK OF RICHMOND,

Main and Tenth Streets

WOOD'S SEEDS.

To Our Customers

Prices on Crimson Clover have declined since our Fall Catalogue was issued. Write for prices; or we will, as customary, bill all orders at lowest prices for best quality seeds at time the order is received.

"WOOD'S CROP SPECIAL," giving seasonable information and current prices of all Grass, Clover and Field Seeds, mailed at any time upon request.

T. W. WOOD & SONS,

Seed Growers and Merchants.

RICHMOND, VA.

If you have not received copy of our Fall Catalogue, write for it.

A NEAT BINDER.

We have recently received a new supply of Binders for the Southern Planter. This is a very neat and durable device for saving the entire volume intact. It will prevent soiling and turning up of the corners. Get one now and fasten your copies in it as they are issued and at the end of the year, you will have a valuable reference volume. Price, 30 cents, post-paid.

NEW ENGINE AND BOILER CATALOGUE.

The James Leffel & Co., Springfield, Ohio, have issued a very handsome and complete new 52 page catalogue, illustrating and describing their line of Steam Engines and Boilers. The details of construction are plainly shown and fully explained, and the catalogue is one that should be in the hands of any prospective purchaser of work in the Steam Power line. A copy will be furnished free to prospective buyers, stating their wants, and addressing the Company as above.

In writing or this catalogue please request Catalogue "O."

Want Running Water?

You can have a constant stream at house or other buildings from spring or stream on a lower level by installing a

RIFE HYDRAULIC RAM.

Most satisfactory water service known. Always going, no attention, no running expense. Raises water 30 feet for every foot of fall. 18 inches fall enough to operate it. Over 5,000 now in use.

Sold on 30 Days Free Trial. Ask for booklet giving particulars.

RIFE ENGINE CO.,
2113 Frinity Bldg.,
NEW YORK.



WARRINER chain hanging stanchions save cost in feed in one winter, says H. A. Moyer, Syracuse, N. Y. I think them perfect, writes I. B. Calvin, Kewanna, Ind., vice-president state dairy association. Send for booklet containing further information to WALLACE B. CRUMB, South St., Forestville, Ct.

CAPITAL AND PROFITS, - - - \$1,134,938.14

Special attention paid to out-of-town accounts. Correspondence invited.

Three per cent. interest allowed in Savings Department.

Compounded semi-annually.

Lost Strayed or Stolen—One Cow

That is about what happens each year for the man who owns five cows and does not use a Tubular cream separator. He loses in cream more than the price of a good cow. The man who owns the greater of the loss. This is a fact on which Agricultural Colleges, Dairy Experts and the best Dairyman all agree, and so do you if you use a Tubular. If not, it's high time you



did. You can't afford to lose the price of one or more cows each year—there's no reason why you should. Get a Tubular and get more and better cream out of the milk, save time and labor and have warm sweet skinned milk for the calves. Don't buy some cheap rattle-trap thing called a separator that won't do any good. You need a real skimmer that does perfect work, skims clean, thick or thin, hot or cold, runs easy, simple in construction, easily understood. That's the Tubular and there's but one Tubular, the Sharples Tubular. Don't you want our little book "Business Dairymen," and our Catalog A. 290 both free? A postal will bring them.

The Sharples Separator Co.
West Chester, Pa.
Toronto, Can. Chicago, Ill.

DAVIS

Get it direct from factory at factory prices and save 20% to 50%.

The simple cream separator which doubles profits and cuts dairy work in two. Absolutely the simplest, easiest running, easiest cleaned separator in the world. Just belch to a man, his three-piece bowl gets the last drop of cream. Investigate our liberal selling plan. Send your name and address to us on a postal card and get our money saving catalogue No. 126 by return mail.

Davis Cream Separator Co.,
568 N. Clinton St., Chicago, Ill.



PATENT YOUR IDEAS

\$100,000 offered for one invention; \$5,500 for another. Book "How to Obtain a Patent" and "What to Invent" sent free. Send rough sketch for free report as to patentability. We advise your patent for sale at our expense.

Chandler & Chandler, Patent Attorneys,
931 F. Street, Washington, D. C.

Mention The Southern Planter.

WITH THE ADVERTISERS.

The Western Telephone Mfg. Co. have an attractive announcement on another page, to which attention is asked.

Messrs. R. F. Harris & Co. are advertising their Cambridge & Land Roller this month.

Among the new advertisements in this issue is that of J. W. Blackmar & Son, Real Estate Agents, Herndon, Va.

Percheron horses and Shorthorn cattle are offered by the Lynnwood Stock Farm.

DeLaval Separator Co. is also a new advertiser in this issue. Look up the ad and send for their latest catalogue.

Mr. R. S. Farish has a couple of advertisements in this issue to which attention is asked. Angus cattle and seed oats are his offering.

Some fine poultry is offered by the Ellerson Poultry Yards.

One of our oldest advertisers, Mr. J. B. Gray, the Veteran Poland China breeder, starts the season's advertising this month.

Some splendid Shropshire rams are offered by Mr. H. R. Graham, Chestertown, Md.

Suffolk sheep can be had of Mr. B. E. Watson, Stuarts Draft, Va.

Messrs. N. R. Savage & Son, Seedsmen, make their initial announcement this month.

The Spottless Co., the well known Southern Mail Order House, has an important full page announcement, to which we ask attention.

The Chicago House Wrecking Co. have an interesting advertisement on page 2 of the cover.

The ladies will be particularly interested in the announcement of the Standard Oil Co., to be found on another page.

Kitselman Bros., the well known fence makers, are running a couple of advertisements this month.

The Kalamazoo Stove Co. have an interesting proposition in another column.

Mr. O. L. Chase, The Paint Man, would like to talk paint to interested parties.

Macbeth, the Lamp Chimney Man, starts his advertising this month.

The Ward Fence Co. is going right after the farmers' trade in this section as may be judged by their advertisement.

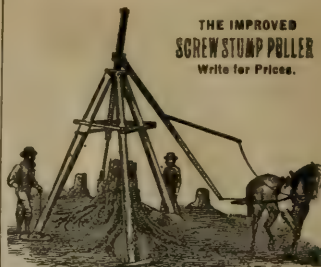
The Milne Mfg. Co. would like to assist you in pulling stumps with the aid of their well known machine.

Messrs. Diggs & Beadles, Seedsmen, would like to mail you their Fall catalogue.

Angusta County, Va., Apl. 20, 1906.
I cannot well do without The Southern Planter. J. B. CLAYTON.

THE IMPROVED SCREW STUMP PULLER

Write for Prices.



Chamberlin M'tg Co., Olean, N. Y., U. S. A

HERCULES Stump Puller



Clears an acre of heavy timber land each day. Clears all stumps in a circle of 150 feet without moving or changing machine. Strongest, most rapid working and best made.

HERCULES MFG. CO.,
413 17th St., Centerville, Iowa.

MONARCH STUMP PULLER



Will pull stumps 7 feet in diameter. Guaranteed for 12 months and a strain of 250,000 pounds. Catalogue and discounts, address MONARCH GRUBBER CO. Lone Tree, Iowa.

Monarch Stump Puller.

Farmers having stumps to pull or land to clear, had better investigate the Monarch before buying.

5 sizes from \$25 up. We ship on approval and guarantee satisfaction before we want your money. 8 years experience in pulling stumps. Write for catalogue and prices. J. B. W. RITCHIE, State Agent, R. F. D. 39, Grottoes, Va.

MCCORMICK

Husker and Shredder

(4 roll) in good condition, for sale cheap. Apply to SEAY-DILLARD HARDWARE CO., Blackstone, Va.

First Check for \$100

will buy a new McCormick Husker and Shredder.

Good Grade and Pure-bred Angus Bulls at reasonable prices. L. B. GILLILAND, Jr., Clarksville, Va.

FARM TELEPHONES

How to put them up—what they cost—why they save you money—all in FREE information and valuable book free write to J. Andrus & Sons, 261 W. Water St., Milwaukee, Wis.

GRAIN and FERTILIZER DRILL

The YORK FORCE FEED DRILL combines lightness with strength. Most complete drill made. No complex gearing to get out of order. Boxes are close to ground. Fully

Guaranteed
Easily regulates quantity of seed or fertilizer, and sows with regularity.
Weight, Only 700 lbs.
Cautious Opening from Top to Bottom.
The Only Opening Tank and TOWERS.
Write for Catalogue.
THE HENCH & DROMGOLD CO.,
Mfrs., York, Pa.



SILOS

The Philadelphia, the Best on Earth

Has the Longest Test and most in use. Cautious Opening from Top to Bottom. The Only Opening Tank made. TANKS and TOWERS, Ask for Price and Catalogue.
E. F. SCHLICHTER,
1510 Market Street,
Phila., Penna.



To every reader of the Southern Planter we will send sample 334 H. P. gasoline engine at one half price. This offer is only good for a limited time.

C. H. A. DISSINGER & BRO., Wrightsville Pa.



\$85

Will buy our 2 H. P. 4 Cycle Engine. Other sizes in proportion. Buy direct and save dealer's profit. Vertical, Horizontal and Portable Gasoline Engines. Pumping outfits especially. Write for free circulars.

SAUROT BROS.
Springfield O., 60-66 Fisher St. S.

ENGINES FOR SALE.

10 Horse traction \$250, 12 Horse traction \$300, 16 Horse traction \$400, double sawmill \$125, 10 Horse portable engine on wheels \$150, 6 Horse vertical boiler and engine \$100, 5 Horse vertical boiler and engine new, \$135, No. 3 Bowsher corn mill \$25, new bolters tanks and plate work of every description made to order, second-hand bolters and engines carried in stock from 3 to 100 horse. D. L. CASEY MACHINE CO., Springfield Ohio.

Save Your Building Money

Make your own concrete building blocks. Stronger than brick or stone, cheaper than wood, price reasonable "or" high grade success Concrete Block Machine. Catalog and price list on application. HERCULES MFG. CO., Dept. A-102, Centerville, Iowa.

Always mention The Southern Planter when writing to advertisers.

A VALUABLE FREE BOOK FOR THE DAIRYMAN.

A new 24-page book is being given away by the Sharpless Separator Co., of West Chester, Pa., which takes up the subject of business dairying and the science of making cows pay.

Wasted food is wasted money, as every dairyman and farmer knows. To thoroughly understand what foods make muscle, blood and milk, and what foods produce heat and fat, is to have the secret of successful dairying. "Business Dairying" tells in a practical way what foods are best for the dairyman to feed and why. It also touches on the care of milk and cream, butter making, churning, working and packing, as well as how much milk for a pound of butter. The selling value of cream is another point taken up, and how wastes can be turned to profit. A close study of "Business Dairying" will reveal many ways to the intelligent dairyman for cutting off losses and improving every opportunity to save. Another feature of the book is "Stable Hints and Suggestions," and the value of manures.

While the practical experience of dairying is usually and best confined to the local conditions there is enough valuable information in "Business Dairying" to more than pay for the time and trouble in writing for it.

The points to be observed in judging cows will be worth many dollars in selecting dairy cattle. This is illustrated with table of points to be considered and diagram of the perfect dairy cow. Profitable dairying is in the "knowing how" and this book tells in a brief intelligent way how to reduce the cost of milk production and how to cut off the waste. A postal card addressed to the Sharpless Company as above will secure you the book without cost. Be sure to mention the name of this paper when writing for "Business Dairying."

SUCCESSFUL FARMING.

The man who conducts his farm on business principles, using modern and up-to-date methods, is sure to succeed.

Anything that will help reduce labor, save time, increase the quantity and improve the quality of the crops, very naturally means greater profits.

Modern agricultural machinery solves the problem of raising and harvesting the immense crops which are annually grown; the railroad trains and steamers carry them to the markets of the world.

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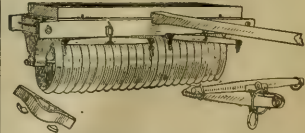
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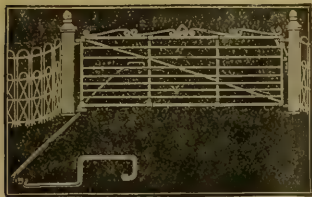
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HINTS BY MAY MANTON.

The plain waist with roll-over collar makes one of the latest variations of the favorite Peter Pan or tennis model and has a great many advantages. It is simple and easy to make while it is becoming to most figures and can be laundered with perfect ease. This one includes the characteristic elbow sleeves which either can be closed or made with openings at the outer portions as may be liked, the lower edges being finished with bands and cuffs. As illustrated it is made of pale blue linen chambray but it is appropriate for all the season's waistings and is quite as attractive for thin law's and batistes as in the heavier linens, Madras and the like.



5420 Blouse or Shirt Waist,
32 to 42 bust.

The waist is made with fronts and back. The front edges are finished with wide hems and the patch pocket is arranged over the left front. The roll-over collar is joined to the neck and the fulness at the waist line can be regulated by means of tapes or straight bands. The sleeves are gathered at both upper and lower edges and are finished with bands and cuffs. The quantity of material required for the medium size is 3-3/4 yards 21, 31-2 yards 27 or 17-8 yards 14 inches wide.

The pattern 5420 is cut in sizes for a 32, 34, 36, 38, 40 and 42-inch bust measure.

The French dress with its long waist is exceedingly becoming to childish figures in addition to being in the height of style. This one is novel in treatment and is adapted to a variety of materials but in this instance is made of white mercerized batiste with trimming of fine embroidery and is

The lamp is yet to be made for which I haven't made a chimney that fits.

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Blue Ribbon winners at Roanoke and Radford Fairs. Samples on application; prices reasonable. S. S. STEPHENS, Cambria, Va.

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WHITE

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worn with a ribbon sash. The tucks at both front and back serve to give needed strength to thin material at the same time that they provide graceful fullness for the front of the skirt and are eminently becoming. The frills over the shoulders give the



5416 Child's French Dress

2 to 8 years.

epaulette effect that is always becoming to young children while the slightly open square neck and short sleeves mean comfort on a warm summer day. In addition to the batiste the dress will be found suited to all the pretty washable materials of the season while it also can be utilized for veiling, cashmere and similar light weight wools that are so pretty in light colors.

The dress is made with the front that combines the waist portion and skirt the back of the waist and back of the skirt. The back portion of the skirt is gathered and joined to the front and the back of the waist and the seam is concealed by the sash. The sleeves are short full puffs and the epaulettes are arranged over the

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 A VETERINARY SPECIFIC
 14 Years Sale. Cures Heaves, Cough, Cold, Influenza, and all other ailments of horses, dogs, and cats. Of all kinds of horses, dogs, and cats. Of all kinds of horses, dogs, and cats. Of all kinds of horses, dogs, and cats.

beginning to get hard, you can split the rows down the middle and cut it off in two slices. Season the corn with pepper, salt, and a few bits of chopped bacon. Arrange it all in a dish with alternate layers of tomatoes, letting the tomatoes come last, with a sprinkling of bread crumbs and some bits of butter; cover the dish and bake for half hour, then uncover and let it bake twenty minutes longer to brown. This is very good.

Stuffed Peppers, Green.

Select the sweet peppers of uniform size, leave a short stem; make a slit in the side and take out all the seed. Grind some scraps of ham, adding a few bread crumbs, salt, pepper, melted butter and a sprinkle of celery seed. Fill the green pods with this and tie up; arrange them in a pan, pour a cup of water around them and bake them slowly until well done.

Fried Cucumbers.

Peel the cucumbers, and cut into four pieces, long ways. Let them lie in ice water for half hour then take them out, sprinkle salt and pepper over them, dip in a batter made of one egg to one cup of flour, with enough lard and sprinkle with salt just as you take them off. Serve very hot.

Spanish Pickle.

Chop into rather large pieces eight heads of cabbage, two dozen green peppers, removing the seed, six dozen large onions, two dozen large cucumbers, without peeling. Sprinkle a pint and a half of salt through these and hang up in a bag all night to drip. The next day squeeze dry and put into the kettle in layers with the following spices between: Four ounces of white mustard seed, four ounces of black mustard seed, three-quarters of a pound of ground mustard, four ounces of celery seed, four ounces of turmeric. Dissolve eight pounds of sugar in two gallons of vinegar and pour over it and boil until the vinegar begins to thicken, it takes about four hours, and put it into stone jars. It may need more vinegar. This is the finest pickle of the kind and this recipe will make four gallons and one quart. You may make it with brined cucumbers, and once when my cucumbers failed I used green tomatoes with very good results.

Pepper Mangoes.

Remove the seed from the large green bell peppers by cutting a slit in the side. Drop them in salt water. Chop two heads of cabbage, six large cucumbers, three onions, very fine, sprinkle salt over them and let them stand twenty-four hours, then squeeze very dry and all half a pound of sugar, one pound of mixed spices, and mix all together thoroughly. Fill the pepper pods with this and tie them up carefully. Pack them in a stone jar and cover them with boiling vinegar,

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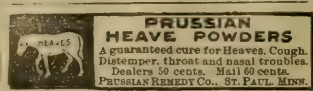


handy in case of a Bruise or Strain. This remedy is rapid to cure, pleasant to use, and you can work the horse. No blister, no hair gone.

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If you are looking for some really good, finely bred, farm-raised stock, either cockerels or pullets, I have it. You could look the country over and you probably would not find as pretty a flock from which to make your selections—nearly 300 birds. In establishing my yards, I have patronized breeders of National reputation, so you can get their stock through me at about one-third their prices. Whether you want foundation stock or males for out-breeding or for improving your flock, I can easily suit you at prices you can afford to pay. If you will come to my yards and make your selections, you will offer me more than I would ask you for my birds. If you can't come, write me your wants. **PARKIN SCOTT, Ashland, Va.**

PURE BRED**White Wyandottes.**

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COCKERELS.****Write Us for Prices.****ELLERSON POULTRY YARDS,
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Pullets and Cockerels of both breeds. Splendid healthy young stock. I have shipped everywhere and have never had a complaint. **WHITE WYANDOTTE EGGS** only at \$1 for 15 at present. Write me please. **A. L. PARKER, Fall Creek Poultry Farm, Ashland, Va.**

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For Sale. Give me your order now for some choice White Wyandotte cockerels and pullets. You will not regret trying our stock. They are good size and fine layers. Address **H. H. ARBUCKLE, Edgewood Stock Farm, Maxwellton, Va. Va.**

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Old and young stock for sale. **JNO. W. MORRIS, Waldrop, Va.**

with a few sticks of horse radish and a pound of sugar in it. Heat the vinegar six times and then tie the jar up, and do not use the mangoes for six months.

Preserved Ginger.

You can buy the green ginger for about fifteen cents a pound, and it makes a delightful preserve, fully equal to the West India confection we think so highly of. Wash the roots and scald them for half hour in plain water, then drop them into syrup made with one cup of water and one pound of sugar, allowing pound for pound sugar and roots. Let them cook slowly until tender and the syrup very thick. Put up in glass jars.

Ginger Apples.

Pare and quarter the apples. Drop them in a weak alum water for some hours. Allow a pound of sugar to each pound of apples and one pound of green ginger root to fifteen pounds of roots. Let them cook slowly until tender. Make a thick syrup and drop the apples into it. Let them scald and take them out with a strainer; let them get cold, a return to the syrup, and cook till clear and tender. The ginger should stay in the cooking syrup all the time. Pears are good done this way, too.

Canned Apples.

Pare and quarter the apples. Weigh them and allow a quarter of a pound of sugar to the pound of fruit; drop them in the boiling syrup and cook them long enough to make them tender without falling to pieces. Fill the glass jars to running over and screw the top on while it is boiling hot. These are a nice desert, and should always be served with sponge cake and pure cream.

CARAVEN.**"CAUSTIC BALSAM GIVES UNIVERSAL SATISFACTION."****Wapella, N. W. T., Canada,****April 22, 1904.****The Lawrence-Williams Co., Cleveland, Ohio:**

Please send me by mail any nice show cards or advertising matter so I can make a good show. I have sold quite a lot of **GOMBAULT'S CAUSTIC BALSAM** and it has given universal satisfaction. Yours for push and sales.

JAMES A. MACDONALD.**James City County, Va., Mar. 17, 1906.**

I like the Southern Planter very much. It is always seasonable and gives at the right time the information which is always practical and useful and comes from a man who knows what he is writing about.

ALEX GLENESK.**Wise Co., Va., Mar. 12, '06.**

I enjoy the Southern Planter very much. **W. S. MATHEWS.**

"RARVA" MEAT MEAL**65 Per Cent. Protein. 7 Per Cent. Fat.****IS A****POULTRY FOOD.**

Free from preservatives, chemicals or foreign matter of any description. It is a meat-builder, bone-maker, and Egg Producer. It is the clean fibre of beef, clean, pure appetizing and admissible. Thoroughly dry, ready to feed, or may be used in a mash as you prefer. **SAMPLE ON REQUEST.**

Sack, 100 Lbs., \$3.00.**Richmond Abattoir****26TH & CARY STS.,
BOX 27 DEPT. M. RICHMOND, VA****Poplar Hill Poultry Farm****SILVER LACED****WYANDOTTES****EXCLUSIVELY.**

Fresh eggs for hatching from high scoring birds \$1 per 15; \$5 per 100.

Satisfaction guaranteed to every customer.

Dr. H. H. LEE, Prop., R. F. D. 4 LEXINGTON, VA.**Black's Black Langshans**

are a distinct strain of **TYPICAL LANGSHAN** fowls. Bred for superior egg production—retaining standard size, shape and color.

I can furnish high scoring birds for fall and winter shows. Write for prices. **A. M. BLACK, Tazewell, Va.**

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WHITE WYANDOTTE, WHITE LEGHORN and BARRED PLYMOUTH ROCK cockerels and pullets. Prices low. **F. C. rented with it. L. W. R., care Southern LOUHOFF, Yancey Mills, Va.**

500**BARRED PLYMOUTH ROCKS
AND BLACK MINORCAS**

for sale. Also a fine lot of **White Indian Games, R. L. Reds, Buff Orpingtons, Rose and S. C. Brown and White Leghorns** at special bargains. Enclose stamp and state wants in first letter.

C. L. SHENK, Box P, Luray, Va.**I HAVE FOR SALE****300 S. C. BUFF ORPINGTON**

cockerels and pullets—also one pen of one year old hens and one year old cock; 150 **S. C. R. I. RED COCKERELS, 150 R. C. WHITE WYANDOTTE Cockerels.** Prices reasonable. **FOREST PARK FARM, Charles W. Smith, Prop., Williamsburg, Va.**

GLENVIEW ORPINGTONS.**S. C. BUFFS Exclusively.**

Some 3 year old hens at special bargain prices. Must be sold before cold weather. A postal will bring you the facts. **B. S. HORNE, Keswick, Va.**

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If you want high class business birds, I can please you. Money back if not satisfied. **L. W. WALSH, Box 248, Lynchburg, Va.**

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We desire to announce to the public that we have purchased the entire BILTMORE STRAINS of S. C. and R. C. WHITE LEGHORNS and S. C. BROWN LEGHORNS, acquiring all their prize winners, interest and will for said breeds; in addition to the fine strains that we have been carrying, BARRED PLYMOUTH ROCKS, WHITE WYANDOTTES, LIGHT BRAHMAS, WHITE and PARTRIDGE COCHINS, WHITE CRESTED BLACK SPANISH, BRONZE TURKEYS and MUSCOVY DUCKS and MAMMOTH ROUEN DUCKS.

We will be glad to quote you prices on stock and eggs.

Pekin Ducks

A fine lot at bargain prices. Write me about them.

I also have 40 other Varieties of pure-bred Poultry. Send 6c. and get my large poultry book.

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For Sale. A few 1 and 2 year old WHITE WYANDOTTE and S. C. W. LEGHORN hens at 75c. each; MAMMOTH PEKIN DUCKS, \$2.50 per pair, WILD MALLARD DUCKS and WHITE HOLLAND TURKEYS, \$5 per pair. WHITE POULTRY YARDS, Lorraine, Va.

SHEANDOAH VALLEY POULTRY YARDS

WHITE LEGHORNS Exclusively.

Pure-bred. Famous Blanchard, Waterville, N. Y. strain. Hatched under hens. Free range. Forty Cockerels for sale, \$1 to \$2 each. DR. AMBLER CASKIE, Prop., Stuart's Draft, Va.

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COOK'S WHITE ORPINGTON, DUSTON'S WHITE WYANDOTTE, HAWKINS' BARRED ROCK. Nothing but the best at reasonable prices.

FINE MAMMOTH BRONZE turkeys. Miss CLARA L. SMITH, Prop., Landon Poultry Yards, Croxton, Va.

60 2-YEAR OLD

S. C. W. LEGHORN

Hens for sale: also 20 LIGHT BRAHMA hens. These's breeders. C. L. DOHME, Culpeper, Va.

SPRING BROOK POULTRY FARM, Culpeper, Va.

S. C. B. LEGHORNS

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exclusively. 1½ and 2 lb. Cockerels, 50c. up according to quality. Eggs in season. Satisfaction Guaranteed.

ROSE COMB WHITE LEGHORNS
BUFF PLYMOUTH ROCKS

Stock for sale. Eggs in season.

FRED NUSSEY, - - Massaponax, Va.

CLUBBING LIST.

In this list will be found prices on papers, magazines and periodicals which are most called for by our readers. We have club rates with nearly all reputable publications, and will quote them on request:

	Dailies.	With Alone. S. P.
Times-Dispatch, Richmond, Va.	\$6 00	\$6 00
Times-Dispatch (without Sunday)	4 00	4 00
News-Leader, Richmond, Va.	3 00	3 00
The Post, Washington, D. C.	6 00	6 00
The Sun, Baltimore, Md.	3 00	3 40

Thrice a week.

The World, New York....	1 00	1 25
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Weeklies.

Times-Dispatch, Richmond, Va.	1 00	1 25
Central Presbyterian, Richmond, Va.	2 00	2 25
Southern Churchman, Richmond, Va.	2 00	2 25
Harper's Weekly	4 00	4 00
Breeders' Gazette	2 00	1 50
Country Gentleman	1 50	1 75
Hoard's Dairyman	1 00	1 30
Horseman	3 00	3 00

Semi-Monthly.

Kimball's Dairy Farmer...	1 00	75
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Monthlies.

The Century	4 00	4 25
St. Nicholas	3 00	3 25
Lippincott's	2 50	2 50
Harper's Magazine	4 00	4 00
Harper's Bazaar	1 00	1 40
Scribner's	3 00	3 25
American	1 00	1 35
Cosmopolitan	1 00	1 35
Everybody's	1 50	1 75
Munsey	1 00	1 35
The Strand	1 00	1 35
Madame	1 00	1 00
Argosy	1 00	1 35
Review of Reviews.....	2 00	3 00
Field and Stream.....	1 50	1 50
Women's Home Companion	1 00	1 25
Reliable Poultry Journal..	50	75
Industrious Hen	50	70
Poultry Success	50	75
Blonded Stock	50	65
Successful Farming	1 00	60
Southern Fruit Grower....	50	85
Shepherd's Criterion	50	75
Commercial Poultry	50	75

When two or more publications are wanted, the price for them can be found by deducting 50 cents from "price with Southern Planter."

We cannot under any circumstances furnish sample copies of other publications.

We will cheerfully quote our best price on any list of publications submitted to us.

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The three Reds for sale.

Red Polled Cattle.
Red Duroc Jersey Hogs.
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The Red Polled Herd is headed by the Royal Blooded Herodotus—weighs over 2,300 pounds and traces his lineage to sturdy Scotland.

The sire of Prince Harriman took first prize of Durocs at St. Louis in 1904. Rhode Island Red Chickens—remarkable for their rich, red coloring, the cocks being magnificent in plumage. The eggs of this breed are large in size, fine color and good flavor. The chicks are all hardy, pullets mature at an early age.

Now ready for market.

Red Polled Bulls.
Red Duroc Jersey Hogs, pairs or three.
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Write me for prices.—JOHN H. HATFIELD, Harriman, Tenn.

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White Wyandottes

are excellent layers. Why not procure pure New Blood from me this year and lay the foundation of a persistent, rough weather laying flock—the kind that pays.

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REDUCED PRICES ON EGGS

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Express paid on two settings or more when order is accompanied with the cash.

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pups for sale. We are now ready for your order for a choice Collie Pup. Finest breeding in America. Eligible to registry, tracing to many Ch. dogs such as Christopher, Ormskirk Emerald, Ormskirk Wellington, and Doon Marvel. We have pleased others and will please you. Address H. H. ARBUCKLE, Edgewood Stock Farm, Maxwellton, W. Va.

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Shropshire Rams,

for sale, 3 yearlings, good size, good individuals, out of an extra fine flock of sheep; price \$18 f. o. b. here.

Also a few fine

RAM LAMBS

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A limited number of my flock of Suffolk ewes for sale, all pure bred and pedigreed. These are fine and large mutton sheep from late importations.

Have a few BERKSHIRE BOARS ready for service out of Hurricane the 4th of Biltmore and High Clerc Choice of Biltmore. B. E. WATSON, Stuarts Draft, Va.

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We purchased at the World's Fair, at St. Louis, a ram that was second at this show. We now have some of his lambs, and they are the best that we ever raised, as good as we ever saw. There are flock leaders among them that would please the most exacting.—J. E. WING & BROS., Mechanicsburg, O.



Edgewood Stock Farm,

DORSETS.

Ram lambs for June shipment. If you are in the lamb business you need one. J. D. Arbuckle and Sons, Greenbrier Co., W. Va. Maxwelton, W. Va.

BURKE'S GARDEN

...DORSETS...

I offer some Bucks of the grandest breeding and 80 grade Dorset Ewes, bred to lamb this fall and early winter. Prices reasonable.

SAM'L T. HENNINGER, Burke's Garden, Va.



Write us your wants.

J. F. COOK & CO., Lexington, Ky.

KENTUCKY MULES.

We are now taking orders for yearling and mule colts for September and October delivery. We have a big supply of saddle and traveling stallions, Jacks, Jennets, Poland Chicks and Tamworth hogs.



I HAVE THE FINEST JACKS IN THE WORLD

and the greatest variety to select from. I will also sell you as good imported horses as ever crossed the ocean at prices from \$700 to \$1000. Write for catalogue.

W. L. DECLOW, Cedar Rapids Jack Farm, Cedar Rapids, Iowa.

SCIENTIFIC WRITERS OF THE SOUTH.

Article Third.

Mary Washington.

Dr. Joseph Clark Nott, best known as the author of "Types of Mankind," was born in South Carolina in 1804. He graduated in the South Carolina College in 1824, and three years later, graduated in the Philadelphia Medical College, where he was, for two years, demonstrator of anatomy under Drs. Physick and Hosack. In 1829, he returned to Columbia and practiced medicine till 1835, when he went abroad and spent two years in study. On his return to the United States, he went to Mobile, where he engaged in professional and cognate scientific studies. He spent one year at the University of Louisiana, where he occupied the chair of anatomy, then returned to Mobile, where shortly afterwards the Medical College of Alabama was established and endowed by the Legislature with \$50,000, as a branch of the State University.

Dr. Nott's "Magnum Opus" in literature was "Types of Mankind," of which, however, he was not the sole author, George R. Gliddon being his collaborator. The full title of this work reads as follows: "Types of Mankind, or ethnological researches based on ancient monuments, sculptures and crania of races, and on their natural, geographical, philological and Biblical history, illustrated by selections from the papers of S. G. Morton, and by additions from L. Agassiz, W. Usher and H. I. Patterson."

This work formed an immense octavo, published in Philadelphia, 1854. Nott and Gliddon also prepared another joint work, "Indigenous races of the earth, or new chapters of ethnological inquiry," 1857. The object of the above works was to controvert the theory of the unity of the human race. The same types, they argued, existed 3,000 years ago, and there is no evidence to show that one type has ever changed to another—the same grounds that Agassiz takes. Nott contributed largely to scientific periodicals, the American Journal of Medical Science, the Charleston and the New Orleans Journal of Medicine, and others. He translated Gouppel's exposition of Broussard's medical doctrines.

Among his productions were two lectures on "The Connection between the Biblical and physical history of man," 1849, and "Physical History of the Jewish Race," 1850. After the war, Dr. Nott moved to Baltimore and then to New York where he practiced his profession and wrote for first class periodicals.

Dr. Francis Peyre Porcher was a distinguished physician of Charleston, S. C., born in 1825. He devoted himself assiduously and successfully to botany as a branch of physics adjunct to his profession. His writings bear

You Want a Stallion?

Then it's a French Coacher, of Course!

Write me for prices and plan. I represent the Sedgely Farm of Hinsdale, Ill., largest importers and breeders in America. Best Stock. Prices right.

Interpreted by champion Indre, in stud.

Also breeding, Registered, Jersey Cattle

Duroc Jersey Swine, B. P. R. Fowls.

Selling Agent for Litchfield Grain Grinder & Sharpless Separators.

Wm. G. Owens,
Midlothian, Va.

GOOD HORSES CHEAP.

One pair horse mules, weight about 1,000 each a good strong, reliable farm team \$225.

One black mare, six years old, weight about 1,500 lbs., well formed, quick, active and absolutely reliable.

One dark chestnut mare, seven years old, weight about 1,000 lbs., rides and drives well.

One pair eight year old bay mares, weight about 1,200 lbs., each good, reliable workers everywhere.

One sorrel mare, seven years old, weight about 1,100 lbs. of fine appearance, and work well everywhere.

One 8 year old bay Gelding, 1050 lbs., rides well and a good worker.

One black mare, six years old (weight about 1,000 lbs., well shaped and a good driver.

W. M. WATKINS & SONS, Saxe, Va.

12 HEAD OF

Thoroughbreds

from 1 to 5 years old for sale. Also Brood

Mares by Imp. Fatherless, Imp. Potentate.

Jim Gray, Eon, Aurus and Aureus. Nice

lot of Colts, Geldings and Fillies. Never used or trained.

S. H. WILSON, Brydville, Va.

FINE OLD REG.

Percheron Stallion

Dom Pedro, for Sale: age 15 years; vigorous sound, good worker and foal getter; handsome, large, good bone, style, etc. He is worth what I ask as a work horse and is a bargain for anyone who has use for him. Price \$175 cash here. N. S. HOPKINS, Gloucester, Va.

Hawksley Stock Farm

Has a few fine BERKSHIRE PIGS yet for sale, from Imported Stock. Prices right. Satisfaction guaranteed. J. T. OLIVER, Prop., Allen Level, Va.

GALLOWAYS.

All readers of this paper who are interested in this breed of cattle are invited to write me. N. S. Hopkins, Gloucester, Va.

FOX TERRIER DOGS

for sale 2 males, nicely marked, fine raiting stock. C. L. DOHME, Culpeper, Va.

College of Agriculture and Experiment Station. BLACKSBURG, - VA. BEEF CATTLE.

ANGUS—2 well developed bull calves. These are well bred individuals nine months old.

SHORTHORNS—2 mature cows, 2 heifers and 2 bull calves. It becomes necessary to reduce the Shorthorn herd, and this is a good opportunity to secure some good individuals.

HOGS.

BERKSHIRES—A few boar pigs for July or August delivery.

SHEEP.

DORSETS—A few ram lambs for August or September delivery. For prices and other information, apply to JOHN R. FAIN, Agriculturist.

Cottage Valley Offerings

Several 15-16 GRADE ANGUS Bull Calves ready for service—will make fine bulls for grading up a herd.

A fine lot of thoroughbred O. I. C. pigs, both sexes at reasonable prices.
BULL CALVES out of Southern Cows, by Angus Bull.

Several registered Angus bull and heifer calves.

S. L. Wyandotte Eggs, \$1 for 15.

Five Llewellyn Setter Pigs of just right age to be broken in this fall; color tan and white; price \$6 each.

Several fine family Milch cows young, gentle and fresh to the pail. W. M. WATKINS & SONS, Saxe, Va.

THE GROVE FARM GUERNSEYS.

First prize Herd at Timonium and Hagerstown, Md. Only places herd shown.

BULLS ONLY FOR SALE.

OUR BERKSHIRES

Were unbeaten at Timonium and Hagerstown and York, Pa., only places shown in **EXHIB.**

PIGS, BOTH SEXES FOR SALE.
JAS. MCK. MERRYMAN, R. F. D., Cockeysville, Md. C. & P. Telephone and Telegraph, 431 Latherville, Md.

Imported Large Yorkshire Pigs

From Lord Rosseberry's Herd.

A Yearling, Herd-Header Poland-China Boar

Cheap, to avoid inbreeding.

Poland-China Pigs \$5.00

A. No. 1, Young Angus Bulls.

Stock the best. Prices the lowest.
Overbrook Farm, & W. Conway St. Balto. Md.

HOLSTEIN-FRIESIAN BULL

Sir Thomas Netherlands, for sale to avoid inbreeding; 3 years old. J. H. BOELTE & SONS, Redfield Stock & Dairy Farm, News Ferry, Va.

almost exclusively on that subject. The following is a list of his works: "A Sketch of the Medical Botany of South Carolina." Report made to the American Medical Association at its sessions held in Baltimore and Boston, and published in Philadelphia in 1849, in vol. 2d of the transactions of the American Medical Association.

2. "Medical, Poisonous and Dietetic Properties of the Cryptogamic Plants of the United States," 1854. Published in "Transactions of the American Association," vol. 7th.

3. "Illustrations of Disease with the Microscope," February, 1860. This took a \$100 prize offered by the South Carolina Medical Association.

4. "Clinical Investigations, Aided by the Microscope and by Chemical Reagents." "Contribution intended to disclose minute history of diseases prevailing in that latitude (South Carolina), and to assist the future student; with upwards of 500 original drawings from nature, made at the time of the observations." Published under auspices of the South Carolina Medical Association, 1861.

5. "Resources of Southern fields and forests, medical, economical and agricultural, being also the medical botany of the Confederate States, with practical information on the useful properties of trees, plants and shrubs"—Confederate book, published by order of the Surgeon General, 1863. A stout octavo, over 600 pages.

6. A medico-botanical catalogue of the ferns and plants of St. John's, Berkley, S. C. This was Dr. Porcher's thesis offered for the degree of M. D. in 1847 and was published by the faculty of the Medical College of S. C. Whilst lecturing on the practice of medicine, materia medica and therapeutics, in the Charleston preparatory School. Dr. Porcher edited the Charleston Medical Journal and Review, through five volumes, and contributed largely to its columns.

Contemporaneous with Dr. Porcher was Dr. Julian Chisolm, who was born in Charleston, S. C., in April, 1830. In addition to graduating in this country, he received medical instruction in Paris. He spent the year of 1859 in Europe, and acquired a thorough knowledge of military surgery in the hospitals of North Italy, by contact with the wounded French and Italian soldiers who had fought against the Austrians. When our Civil War broke out, Dr. Chisolm prepared a very valuable work on Military Surgery, which appeared in 1861, and which ran rapidly through three large editions. It became the chief text book of the medical department of the Confederate Army and did much to alleviate the horrors of war as found in military hospitals.

From time to time, Dr. Chisolm contributed freely to various medical journals. After the war, he accepted

HEREFORD

If you are thinking of buying a Bull to cross on native cows, or contemplate establishing a beef herd, the first thing to do is to look carefully in to the merits of the Hereford. Perhaps you think this advice "incompetent" as I am interested in the breed. My interest is not altogether selfish as I am anxious to see better cattle in the South. With this end in view, I carefully studied the various beef breeds before embarking into Herefords. My selection of this breed was made because I found that it came nearer to being the ideal breed, best suited to conditions in this section. In the first place, the Hereford is a rustler, capable of finding his own living, and doing remarkably well on the short grasses of Eastern and Southern Virginia and Carolina. As to what they will do on the upland and mountain sides you can see for yourself at Castalia.

For veal production, you must have a Hereford Bull to get the best results. A grade Hereford calf, at selling age, will weigh up to 200 lbs., and will, therefore, bring from \$10 to \$15, while the best scrub won't fetch over \$7, and mighty few that much. These grades have every marking of a pure-bred, being round, smooth and plump. I have a few that it will take a good judge to distinguish from pure-breds.

For Sale: Bulls; mature, 2-year, yearling and calves; yearling cows already bred to one of my fine bulls; choice heifers. Write for prices or come and inspect the herd and make your own selections—will meet parties with convenience on appointment. MURRAY BOOCOCK, "Castalia," Keewick, Albemarle Co., Va.

CATTLE.

REGISTERED

Galloway Cattle.

If you want to raise an even lot of black hornless calves "built like hogs," try a

GALLOWAY BULL.

You can't get a better Bull for same money in other breeds.

A Galloway Bull is a perfect do-horn and will beget calves as like one another as 'peas in a pod.'

Start a herd now while prices are low

BULL CALVES AND YEARLING BULLS

For Sale. They are good and will be sold right; registered and transferred to purchaser without extra cost.

N. S. HOPKINS, Gloucester, Va

REGISTERED

Holstein-Friesian

Cattle: best butter producing strains; pure-bred JERSEY CATTLE, CHESTER WHITE, BERKSHIRE, JERSEY RED HOGS, and all the LEADING BREEDS OF SHEEP, also DUCKS, POULTRY and TURKEYS.

Write for my prices.

W. R. SELLECK, Huntington Harbor, L. I.

Swift Creek Stock and Dairy Farm

Has for sale a large number of nice young registered A. J. C. C.

JERSEY BULLS AND HEIFERS.

None better bred in the South. Combining closely the most noted and up-to-date blood in America. Bulls 1 to 6 months old, \$25. Heifers, same age, \$35. POLAND CHINA PIGS, \$5 each. Send check and get what you want.

T. P. BRASWELL, Prop., Battleboro, N. C.

50 HEAD

JERSEY COWS

and Heifers and 1 fine 6-year old Bull, for Sale. These cattle will be sold far below their value. D. G. MILLER, Rhodes, Va.

Mention The Southern Planter.

the position of Professor of Military Surgery in the University of Maryland, also of ophthalmic and aural surgery. The latter part of his life, he lived in Baltimore and devoted himself almost exclusively to the treatment of the eye, in which he gained a great reputation.

In the field of medicine, the late Dr. Hunter McGuire, of Richmond, Va., may also be classed among the scientific writers of the South, he having contributed many valuable papers to various medical journals, besides having contributed to Ashhurst's "International Cyclopaedia of Surgery," Pepper's "System of Medicine," and the American edition of Holmes' Surgery."

HAAS' HOG REMEDY.

Dr. Jos. Haas, the veteran maker of Live Stock Remedies, has an announcement in this issue to which attention is invited. He has a proposition he would like to make to every hog raiser, also a valuable free book, "Hogology," he would like to send them. Better drop him a card at once.

BUSINESS ENLARGED.

Our well known advertising patrons The Stratton & Bragg Co., of Petersburg, Va., announces that it has recently established, in connection with its machinery and supply business, a machine shop thoroughly equipped with all modern appliances. It is now in shape to execute all orders and our Southside farmers are cheerfully advised of this fact.

TUTTLE'S ELIXIR.

Gentlemen:

I have given Tuttle's Elixir a trial and find it is the best Horse Medicine on the market. I have used it for stiff joints and bruises and it is all right. I would like one of your books.

Yours truly,

ALONGO P. BAXTER,
Snider Mountain, N. B.

Orange County, Va., March 31, 1906.
The Southern Planter is one of the greatest papers of its kind that I have ever seen and the men who cannot farm or garden with it had better give up the idea. I will never do without it.

ROBERT L. GRAY.

Wilkes County, N. C., April 7, 1906.
The Southern Planter is a splendid farm journal and I certainly cannot do without it.

W. W. FINLEY.

McDowell County, N. C., Apr. 2, 1906.
I have been benefitted a great deal by reading the Southern Planter.

MRS. S. J. PARKER.

Montgomery Co., Va., Apr. 19, 1906.
I think The Southern Planter a very fine paper. W. J. SHELburne, JR.

Overton Hall Farm

Nashville, Tenn.

J. A. Overton, Prop., Reuben Gentry, Mgr

The Stock Farm where INDIVIDUAL MERIT is the FIRST consideration.

JERSEYS.

both imported and home-bred, backed by tested dams of highest merit as individuals

BERKSHIRES.

of the leading English and American Stratus, backed by individual merit, second to none in the world.

Write for new descriptive circular giving prices and pedigree.

Address all letters to OVERTON HALL FARM, Reuben Gentry, Mfg., Sta. B., Nashville, Tenn.

THOROUGHBRED**Berkshire Boars, Jersey Bull Calves, Dorset Buck Lambs.**

Sire of Calves, FLYING FOX 65456, son of Flying Fox who sold for \$7,500 at the Cooper sale 1902.

All stock in best of condition and guaranteed as represented.

F. T. ENGLISH, Centerville, Md.

2 HIGH BRED**REG. JERSEY BULLS**

1 and 2½ years old, for sale; also a few nice cows. Nice lot of S. C. B. Leghorn pullets and a few choice 1 year hens. RIVER VIEW DAIRY FARM, C. M. Bass, Prop., Rice Depot, Va.

FOR SALE AT LOW PRICES.

Reg. Hereford Bull, 7 months old, splendid individual of excellent breeding, large and well marked.

Grade Hereford Heifers and Cows in fine shape.

SEED WHEAT, Red Wonder and Bearded Fulcaster, in excellent order. For prices apply to WM. C. STUBBS, Valley Front, Farm, Sassafras, Va.

Holstein Bull Calf

born August 14th, 1906, for Sale. He is very large and as finely bred as any in the State, being out of Aaggie Clothilde by Monk's Count. W. W. JACKSON, Farmville, Va.

ROSE DALE HERD....**Aberdeen Angus**

Top notch young registered Bulls our specialty. A few heifers to offer with bull not akin. We send out none but good individual units. Correspondence and inspection of herd invited. ROSE DALE STOCK FARMS Jefferson, Va.

Walnut Hill Herd**Aberdeen Angus Cattle**

Calves, 3 months old and up, for sale.

J. P. THOMPSON, Prop., Orange, Va.

Poland China Pigs

Some fine ones, young sows bred, young boars and pigs. No better breeding in the United States. My herd boars have been sired by J. H. Sanders, Lookmeover, Perfect I. Know, Proud Perfection, Corroctor and High Roller, the greatest prize winners of the breed—my sows have been as carefully selected.

RED POLLED CATTLE. Fine good young bulls. Will sell a few sows and heifers. **ARKOWHEAD STOCK FARM,** Charlottesville, Va., SAM'L B. WOODS, Prop.

POLAND CHINAS,

with the business hams; booking orders for fall pigs. Sired by Tecumseh Perfection 2nd, and out of sows sired by S. C.'s U. S. Chief, Irvinson Climax, Chief, Corroctor, Stones Sunshine, Sunshine of Maple Grove. Have for sale two males and one female. Sired by Chief Climax 2nd, and out of a fancy Sunshine sow. Growth and good individuals. Price right. Satisfaction or money refunded. Write your wants. A. GRAHAM & SONS, Overton, Albemarle Co., Va.

Registered P. China

C. Whites. Large strain. All ages mated not skin, 8 week pigs. Bred sows, Service boars, Guernsey calves, Scotch Collie pups and poultry. Write for prices and free circulars. P. F. HAMILTON, Cochranville, Chester Co. Pa.



Southdown Sheep and ESSEX PIGS

A fine lot of Southdown lambs, pure stock Essex Pigs ready for shipment in June, July and August. Your orders solicited. L. G. JONES, Tobaccoville, N. C.

Chester Whites

at Farmers' prices. Best hog on earth. One O. I. C. Boar, 1 year old cheap. S. M. WISSEARVER, Rustburg, Va.

BERKSHIRES.

of all ages for sale; sons, daughters or grandchildren of ELMWOOD CHIEF OF BILTMORE, COMMANDER'S BEAUTY, MASON OF BILTMORE II, MY DAISY, BILTMORE II, LOYAL LEE'S CYNTHIA OF BILTMORE 4TH purchased from Biltmore Farms, and KING HUNTER and Berkshire of Biltmore, owned by Biltmore Farms.

BEAGLE PUPPIES FOR SALE. ROBERT HIBBERT, Strines Farm, Charlottesville, Va.

BERKSHIRES.

Send in your orders for pigs or sows. We will ship you good individuals, superb in conformation marking and health. We breed for the Farmer who wishes to improve his herd, or start a new one. If you can do so, come and see our stock. **WALNUT GROVE FARM,** W. J. Craig, Manager, Shawsville, Va.

BERKSHIRE BOARS. I offer some exceedingly choice young boars for sale; by Imported Danesfield Tailor, 76490 and out of Biltmore bred sows. It will be hard to find better or cheaper stock. **HENRY WARDEN, Fredericksburg, Va.**

ENQUIRERS' COLUMN.

GETTING RID OF CHICKEN LICE AND MITES.

I will be very glad to receive information through the Planter, in regard to the best way of getting rid of chicken lice and mites.

Please mention a thoroughly reliable liquid exterminator; one that has been tried and found to be sure death to them, and suggest an apparatus for applying it.

If a sprayer is to be used, please mention a kind that is used for white-washing poultry houses, as I find that an ordinary sprayer for spraying plants will not act well in white-washing.

AN ENQUIRER.

Pyrethrum insect powder dusted amongst the feathers will soon rid the birds of lice. The lice and mites in the houses can be killed by spraying with kerosene or kerosene emulsion, or by mixing kerosene and lime wash and spraying the houses thoroughly. The Deming Co. make a sprayer for applying lime wash. The Sydnor Pump and Well Co., of this city, are agents for the company.—Ed.

DIRECTIONS FOR MAKING CAKE.

Will Caraven and other readers of the Planter please give me complete directions for making cake, the length of time the batter should be beaten, the way the heat should be regulated, or about what degree of heat is required to rise the cake, and, in short, how to obtain the light fluffy appearance so essential to good cake.

Please recommend a good, reliable kind of baking powder, one that has been tried and found not to impart a bitter or sour taste to cake as many cheap powders do.

I will appreciate very much the desired information on this subject.

A SUBSCRIBER.

THE HANDLING OF THE HOG CROP.

I will have forty-five hogs to kill next fall (about December 1st), please say how you would handle all the way through. I am carrying my pigs now on grazing crops with a little grain and expect to finish on sojas and cow peas in the fall together with some corn and middlins as a change. What I particularly want to know is the best plan to handle the meat after killed. I have had little experience with this business so far and want to start right, and at the bottom. Could I get an experienced man from the Smithfield section to cut out and cure my hams and sides; or do you think it would pay.

My idea is to sell shoulders and everything green except the hams and sides, and to cure the bacon and sell separately. I would be glad to have

Reg. Berkshire Boar

"Prince Hanover," \$112, for sale or trade; Son of Mason of Biltmore, and from such stock of prize Berkshires as Loyal Mason, Loyal Berks, Elmwood Chief, Commanders Beauty, &c. Fine condition, quick and large range growth and healthy. Address **ARDEN HOWELL, Ashland, Hanover Co., Va.**

Large Yorkshire AND Berkshire Hogs.

Pigs of both sexes. Glits, ready to breed. Boars ready for service. TWO ANGORA BUCKS. H. D. COLEMAN, Ivy Depot, Va.

..... 5 REGISTERED 5

Yorkshire Boars

by Holywell Hatfield 2nd, for sale. Farrowed May 15th. **BARNES COMPTON, Charlottesville, Va.**

ELLERSLIE FARM—

**Thoroughbred Horses
AND SHORTHORN CATTLE,
Pure Shorthorn Sheep
and Berkshire Pigs.**

FOR SALE, R. J. HANCOCK & SON, CHARLOTTESVILLE, VA.

DEVON HERD, HAMPSHIREDOWN FLOCK
ESTABLISHED 1884. ESTABLISHED 1880.

**DEVON CATTLE
BULLS and HEIFERS,
Hampshire Down Sheep,
RAMS and EWES.**

ROBT. J. FARRER, Orange, Va.

SALT POND HERD

Duroc Jerseys.

The top of 60 head of April, May and June pigs for sale. Sired by PAUL J. (son of Oom Paul) MONARCH and LONGFELLOW. Prices reasonable.

S. A. WHITTAKER, Hopside, Va.

WHY RAISE DARK SKIN



hogs when whites are just as easy and look so much nicer. O. I. C. is the hog to raise.

F. S. MICHIE, Rio, Va.

BUTTERCUP'S GOLD QUARTZ

Drp Oct. 27, '05, a typical Jersey dairy bull, sire by Golden Lad's Successor 53360, who won sweepstakes at Pan-American Exposition, and more other awards at leading fairs than any bull in America of his age. Dam of this bull a fine individual with Tortmentor 5th, Onan and Lownes blood. Price and particulars from J. F. GULLIVER, R. F. D. No. 1, Asheville, N. C.

Brunswick County, Va., April 27, 1906.

I value the Southern Planter highly and consider it one of the very best agricultural journals published.

A. S. EBERSOLE.

WANT ADS.

Rate 2 cents per word. Cash with order. Initials and figures count as one word. 25 cents minimum charge.

WANTED—FIRST CLASS UP-TO-DATE

Farmer to work under manager on large farm fifteen miles from Lynchburg, Va. Must have thorough knowledge of stock raising; horses, mules, Shorthorn cattle, Southdown sheep hogs, poultry (incubators), understand planting and raising grain and fruit in South, rearing farm machinery. Wife, butter maker, fruit canning and care of owners house. House, six rooms, stable for two horses, cow, pig, chicken sheds and garden given. Wages \$20 to \$30 per month.

None but first class people need apply. References thoroughly investigated. Write for particulars. "South," care of Southern Planter.

"IN THE GREEN FIELDS OF VIRGINIA."

For rent for a term of years, Farm of 100 acres, 3/4 of a mile on Capital Road from the live and thriving Town of Orange, Va. This land is easily cultivated, grows heavy crops of Corn, Hay, Potatoes, Cabbages &c., and from its admirable position would suit Dairy, Trucking or General Farming; Comfortable House, large Stable, corn House &c., all under Fence and the best of water. A rare opportunity financially, socially and in the most delightful climate for capable Farmer with small Capital. MACON & CO., Orange, Va.

WANTED—SUPERINTENDENT TO TAKE charge of country place in Albemarle Co., Va. Must be experienced farmer, understand horses, gardening, dairy and chicken, capable of running place in owner's absence. Address A. H. W., care Southern Planter.

BE SURE AND READ MY DISPLAY advertisement about French Coach Stallions. Wm. G. Owens, Midlothian, Va.

WANTED TO TRADE FRUIT TREES. Shaded, Ornamental, Heed plants or small fruits for good horse, Guernsey, Jersey, Red Poll Bull or Leghorn Chickens. A. W. Wallis, care of Franklin Davis Nursery Co., Baltimore, Md.

WANTED—A GRADUATE OF A NORMAL Manual Training School to teach in a school for boys in the middle South. Must be able to teach agriculture. Address S. A., care of Southern Planter.

WANTED—TENANT FOR ONE OF THE best grain and tobacco farms in Pittsboro, Va. country 220 acres, good place for right party. References exchanged. Garry Hundley, Worlds, Va.

BE YOUR OWN MILLER AND GRIND your corn on cob in Litchfield Mill. Best and cheapest. Wm. G. Owens, Agent, Midlothian, Va.

WANTED TO SELL FOR SEPTEMBER delivery, a choice pure-bred Dorset Buck Lamb out of V. P. L. stock; price \$10. DR. A. T. PINCH, Chase City, Va.

THREE BERKSHIRE SOWS FOR SALE; age 5 months, price \$8 or \$15 a pair. L. E. JOHNSON, R. F. D. 4, Charlottesville, Va.

HOLSTEIN-FRIESIAN CATTLE FOR SALE. Cows, yearlings, calves and Young Bulls of the most fashionable breeding. Choice English Berks, Barred Plymouth Rocks. Fassitt Bros., Sylmar, Md.

60 FINE COCKERELS FOR SALE, RHODE Island Reds, Silver-Spangled Hamburgs, S. C. White Leghorns, \$1 each. Address Box 13, R. F. D. 1, Sutherland, Va.

SHELLAP RUBBER ROOFINGS, ELASTIC roof paint. Best and cheapest. Wm. G. Owens, Agent, Richmond, Va.

your ideas as I know I can get something valuable out of them.

D. F. DUNLOP.

Henry Co., Va.

We think the method of feeding the hogs, proposed to be adopted, will be found to answer. Experiments have conclusively shown that the addition of soy beans and peas to a corn ration gives better and more profitable results than corn alone. Feed the grain ration mixed, and not alternately. We think also that you are right in proposing to sell all, except the hams and sides, uncured, though perhaps it might pay to cure the shoulders, making shoulder hams of them. We are unable to say whether you could get a man from the Smithfield section to cut out your meat, but really we see no necessity for this, as any good butcher should know how to do the work. He should take off the head and then split the carcass by cutting down each side of the back bone. This gives the chimes with the back bone. He should then cut off the shoulders and trim them into ham shape, then take off the hams, cutting them into nice shape, and then cut off from the side meat the thick fat upper part to be sold for "backs" and the thin lower part to be sold for "bellies." These backs and bellies could be cured if you have not sufficient market for them green. The hams, shoulders and side meat should then be cured by spreading salt on a board upon which lay the pieces and cover with salt, taking especial care to have the salt well rubbed into the hams and shoulders, especially around the bones and knuckles. Let lay a week or ten days and then sprinkle some saltwater on the meat, say half a pound for each hog. Keep well covered with dry salt by adding some every few days, and keep the table also well covered under the meat. In three or four weeks the meat should be thoroughly cured and ready for the smoke-house. Clean off all loose salt and hang up to smoke and dry, being careful not to over-smoke the meat. Use hickory wood to smoke with and keep the fire well smothered down so as not to get too much heat.—Ed.

LAMB FATTENING.

Will the Southern Planter give an opinion on the feasibility of feeding stock lambs up to butcher's lambs on a ration of good, sweet corn or sorghum silage and cotton seed meal, using say, 10 pounds of the meal to 100 pounds of silage, and without any or any other roughness, and how much of such mixture would be sufficient to carry a lamb of 60 pounds to ripeness in 90 days.

FOSTER CLARKE.

Nashville, Tenn.

The feeding of silage (corn) to ewes and lambs has been tested at the Cornell Experiment Station in comparison with hay and roots. The

TRAINED SETTER BIRD DOG FOR SALE; also 3-year Collie, pedigree 94 generations; Collie Pups; early hatched R. I. Red Cockerels. L. BENNETT, Hollins, Va.

FOR SALE CHEAP. 1 TRIPLE-GEAR, four lever horse power with tumbling rod, speeding jack and pulley. Sold for want of use. Price \$20. E. R. LYNCH, Keenan, W. Va.

POSITION WANTED AS FOREMAN OR overseer of farm, plantation or ranch; 20 years' experience at general farming and stock raising. Hiram Bowman, R. F. D. 4, Waynesboro, Va.

WANTED—all farmers to write to P. J. Wrenn, R. F. D. 4, Disputanta, Va., for lowest club rate on Southern Planter and Chattanooga Weekly Times.

FINE LOT REGISTERED YORKSHIRE Pigs 6 to 10 weeks old, \$6; order quick. W. E. STICKNEY, Strasburg, Va.

PURE BRED SHEPHERD PUPS, 5 WEEKS old, \$5, first come first served. Jno. B. Coleman, Ballsville, Va.

PRINTING FOR POULTRYMEN AND Farmers our specialty. Write us your wants. Chonicle, Rocky Mount, Va.

WANTED—AT A MODERATE PRICE, A Shorthorn, or a Red Polled bull calf. PAUL WILLS, Mason's Springs, Maryland.

ONE PAIR ANGORA GOATS FOR SALE; fine ones. JAS. FOULSEN, Williamsburg, Va.

A FEW VERY FINE PURE-BRED O. I. C. pigs for sale at farmers' prices. DR. L. A. HAUSER, East Bend, N. C.

PURE-BRED BERKSHIRES AT FARMER'S prices. Good male pigs, \$5. LEWIS P. NELSON, Jr., Box 123, Culpeper, Va.

BREEDING EWES FOR SALE, \$3 PER head. T. J. FITZGERALD, Chatham, Va.

WANT A REGISTERED JERSEY BULL calf? Wm. G. Owens, Midlothian, Va.

BUFF ORPINGTON COCKERELS FOR sale. R. R. Case, Charlottesville, Va.

Clinton, Iowa, March 17, 1906.

I enjoy the Southern Planter exceedingly.

J. S. MCCOWAN.

Grayson County, Va., March 29, 1906.

I could not do without your valuable journal.

C. H. HIGGINS.

MANLOVE GATES.

The Manlove Automatic Gates are proving a blessing to humanity in many ways. In addition to being placed in the usual driveways, they are being located on many semi-public highways and also being used on rural free delivery routes throughout the southern states. See advertisement in this issue.

Wythe County, Va., Apr. 2, 1906.

I consider the Southern Planter a most excellent journal and greatly enjoy its monthly visits.

M. H. JACKSON.

Halifax County, Va., April 23, 1906.

I cannot farm without the Southern Planter.

W. E. STOOPS.

HIGHLAND STOCK FARM

Breeds a full line of pure bred stock for the Farm.

I can now furnish SOME CHOICE

POLAND-CHINA PIGS

by Master Sunshine 2nd, also some nice gilts safe in pig to Middlesome, who is a son of the World's Fair Champion at St. Louis. All stock shipped subject to being returned at my expense if not satisfactory.

HENRY S. BOWEN, Witten's Mills, Tazewell Co., Va.



grain fed was linseed meal. The lot receiving the dry feed made the best gain, but there was practically very little difference between the results. Whilst the hay ration made slightly the largest gain, the lambs eating this ration consumed more grain. The lambs soon learnt to like the silage, and ate it freely. Other experiments made at different stations have also borne out the fact that silage is readily and freely eaten by sheep and lambs, and gives good results. At the Wisconsin station a comparison was made between feeding linseed meal and cotton seed meal to lambs. Two lots were fed; all pastured in the same pasture, and received all they would eat of the following grain mixture: Lot 1, one part by weight of linseed meal and two parts of corn meal; and lot 2, one part of cotton seed meal and two parts of corn meal. During the experiment one lamb in lot 2 died. The average weekly gain per lamb was 3.3 pounds for the lot receiving linseed meal, and 2.95 pounds for the lot receiving cotton seed meal. Valuing corn meal at \$14.00, linseed meal at \$20.00, and cotton seed meal at \$25.00 per ton, the cost of feed per pound of gain in live weight was two cents for the linseed meal lot, and three and one-third cents for the cotton seed meal lot. Whilst we think it would be quite possible to feed the lambs into ripeness in ninety days on silage and cotton seed meal alone, we believe that it would be found more profitable to use with the cotton seed meal some corn meal, unless the silage be of a very good quality and full of grain, and also some good hay. We would feed sparingly of the cotton seed meal at first, say not more than half a pound per head per day and increase gradually to one pound, watching results closely, as some animals are very susceptible to injury from cotton seed meal. If all seem to be doing well the ration may be still increased somewhat, but it is doubtful whether much more than one pound per day can be fed with advantage or safety. It will be safer and probably more profitable to increase the grain ration, if increase seems to be called for, by the use of corn meal.

—Ed.

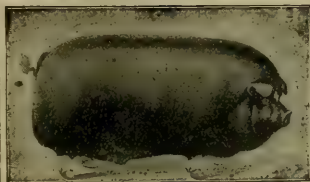
Large Yorkshires

The Tidewater Railway is taking a portion of our best farming land and we must reduce our breeding operations, and have decided to offer a portion of our

Imported Boars and Sows,

besides a number of weanling pigs. This presents a rare opportunity to secure great foundation animals of this great breed. PRICES LOW. Address

BOWMONT FARMS, Salem, Va.



Poland Chinas.

A Superior lot of Pigs by my fine Boars, GRAY'S IDEAL, 65805, GRAY'S BIG CHIEF, 57077 and VICTOR G, 57075. Can furnish pairs not akin to those previously purchased. Come to headquarters and get the best at one-half Western prices. Oldest herd in the State.

J. B. GRAY, Fredericksburg, Va.

POLAND CHINA, TAMWORTH, BERKSHIRE

Pigs at Farmer's prices. Also Bred Sows and Service Boars. All stock entitled to registry and satisfaction guaranteed.

APPLY TO

J. C. GRAVES, Barboursville, Orange Co., Va

Reg. Poland Chinas.

It pays to buy the large and prolific strains; there's where your profit comes in. We have dams closely related to (Anderson's Model 4861) highest priced sow in the world, and dam of the \$305 litter; the highest priced litter ever sold. Choice lot of pigs all ages; let us give you prices, they will interest you.

T. M. BYRD, R. F. D. 3, Salisbury, N. C.



DUROC-JERSEYS

are at the top and there to stay. Write us and we will give you some hog facts that will convince you

We have the blood of ORION, OHIO CHIEF (recently sold for \$2,000.00), SENSATION, SURE WINNER, TOPNOTCHER, PROTECTION, KANT-BE-BEAT, LONGFELLOW, WASHINGTON KING, GO-FORWARD, FAYETTE CHIEF, and HIGH CHIEF, besides a string of others of the leading Western winning strains, THE VERY CREAM OF DUROC-JERSEY BREEDING. Our prices are low and the quality is high. We will give you some DUROC FACTS. Write at once and we

LESLIE D. KLINE, Vaucluse, Va.



BREEDING EWES. STOCK SHEEP.

I am still receiving large consignments of
BREEDING EWES and FEEDING LAMBS and WETHERS
and can furnish them until November.

Send for descriptive Catalog and Price List.

I am offering as a special bargain this month about 250 Breeding Ewes that will make anybody money. They run in ages from yearlings to six and seven years old, and are plenty good for two years yet. I will sell these Ewes at the low price of \$3.00 each while they last.

P. O. Box 304.
Long Distance Phone, Office 993.
Residence Phone 5059.
Telegraph Address, Union Stock Yards.

ROBERT C. BRAUER,
Commission Salesman of
Cattle, Hogs, Sheep, Lambs and Calves.
Union Stock Yard, Richmond, Va.

SELECTING SEED CORN—RYE IN
ORCHARD — GIANT BEGGAR
WEED—ROTTING CORN STALKS
—COMET PEACH—VARIETY OF
WHEAT TO SOW—KAINIT.

1. The writer noticed a field of very promising white corn, Eureka seed or variety, stalks ten to perhaps fourteen feet tall, all shooting from one to four shoots to the stalk. Now, which of these ears, if all matured, would be best for seed? Some shoots have red silk and some white; which is best for seed all things being favorable for its maturity?

2. Is there, or has there been any Giant beggar weed, or Florida clover sowed or grown in this part of the State, if so what is said of it as a forage or land improver?

3. Could a field be sowed to rye this fall and apple trees be planted in the rye without injuring or checking the growth of the trees, the rye around the trees being cut and left as a mulch. The intention is as soon as rye has matured is to cut same and put in a crop of cow peas. The idea is to cultivate trees by hand during the season and mulch with rye.

4. Is there anything that can be put on corn-stalk litter as it comes from feeding pens that would hasten the pulverizing or rotting of the stalks during winter?

5. Is there any orchardist growing a variety of peach east of the Blue Ridge called Billyes Comet (the last peach to ripen) and doing it successfully; am told that it will not ripen anywhere except in the mountains of West Virginia or West Maryland.

6. Please name the best varieties of wheat for fall seeding in this locality.

7. Some people here sow salt on sod land to kill grubs and cut worm, before planting. Why would not kainit answer the same purpose?

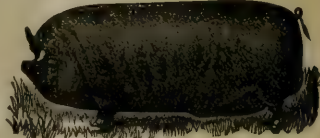
J. B. S.

Campbell Co., Va.

1. The lowest ear on the stalk is usually the best to select for seed as by persistent following of this rule the tall-growing tendency of corn in the South may be combatted with con-

Fancy Berkshire Pigs

from directly imported sows and boars, practically imported blood for you at one-third usual price for such breeding; half imported and half American breeding at pocket-change prices—just a little money order—no bank account needed for these. Extra fine open and bred gilts PEKIN DUCKS and EGGS for sale. S. C. Brown Leghorn eggs cheap. Barred Plymouth Rock eggs cheap. pure—all of them. Thomas S. White,



Sir John Bull.

Absolutely
Fastern Stock and
Poultry Farm,
Lexington, Va.

WE ARE STILL IN THE BUSINESS

"HILL TOP" STOCK at Shadwell, Va.

Southdown and Shropshire Sheep, Berkshire Hogs,
B. B. R. Game Chickens, Fox Hound Puppies.

We now have very few Berkshire pigs, but what we have are the right kind. Have only a limited number of sheep for sale, but some of these are fine bucks ready for service.

Our hounds are pure Walker strain. They have plenty of speed as well as the staying qualities and ARE FINE HUNTERS.

We have won more premiums on sheep and hogs at State and County Fairs, than all other breeders in Virginia, combined.

H. A. S. HAMILTON & SONS, Shadwell, Va.

FOREST HOME FARM

Offers For Sale

Berkshire Boars

as follows:

2 Yearling Boars from Imported Animals.

1, 10 Months Old Boar, FINE.

6, 8 Months Old Boar Pigs.

Also a large number of pigs of both sexes. Write

FOREST HOME FARM

PURCELLVILLE, VIRGINIA.



BERKSHIRES

of the most fashionable English strain.
Prices reasonable, Correspondence solicited.
COL. HENRY HOLLYDAY, EASTON, Md.

BARON PREMIER 3d, 75021

is not for sale unless a cash offer of \$3000 is made. I regard him as being the best Berkshire boar living in the United States today. He is a grand sire, and nicks well with imported stocks. At the Louisiana Purchase Exposition, St. Louis, 1904, he was an easy winner of first prize in his class (of 35 entries) 12 and under 18 months. His sire, Premier Longfellow, was the Grand Champion and recently sold for \$2000.

Lord Premier 50001, a litter mate to the dam of Baron Premier 3d sold for \$1500 when a little more than six years of age. Dutchess 279th 75009 grand champion sow at the Universal Exposition in 1904 is very closely related to Baron Premier 3d. Baror Duke 60th 78356 is a half-brother and otherwise connected with Baron Premier 3d, selling for \$600 when a shoat and subsequently declared champion boar at the Lewis & Clark Exposition. Baron Premier 3d, at a little less than three years old in breeding condition, is estimated to weigh 1000 pounds.

I have pigs from six to ten months old out of selected imported and domestic sows sired by Baron Premier 3d to offer at reasonable prices. Our February sales amounted to \$1600. Write for illustrated catalogue.

Will sell one No. 2 De Laval Hand Cream Separator which cost \$125 for \$80 cash; used about three weeks.



W. H. COFFMAN, Bluefield, W. Va.

siderable success, and the ears may be gradually brought nearer the ground. This, however, should not be the only consideration borne in mind in selecting ears for seed; the character of the ear itself as to size, regularity of rows, filling at butt and tip of cob should also be studied, and if a higher ear is better in these respects than the lowest one, we would select it for the first start in improving the corn and seek to combat the tendency to excessive stalk growth later. The different colors of the silks show the corn to be of mixed breeding. This should be avoided. All should be uniform.

2. We do not know of Beggar weed having been grown in this State. It is better adapted for the States further South, which do not produce crimson clover, cow peas, soy beans, and other leguminous crops so successfully as we can here. These are more valuable as feed and as improvers.

3. Rye or a hoed crop may be grown in a newly planted orchard without injury to the trees. This, however, should not be done after the first two or three years. After that time, cow peas and crimson clover should be the only crops grown among the trees, and these should be turned under to help the growth of the trees. Don't try to grow both fruit and grain crops on the same land at the same time.

ENGLISH AND AMERICAN BRED

Registered Berkshires.

Age 3 months to 1 year; prices \$30, \$25, \$20, \$35, to \$40 each, depending on breeding and age.

- 1 Boar by Imported Loyal Master; Dam, Imported Danesfield Vain Maid.
- 4 Boars by Imported King Hunter; Dam, Berks Pansy of Biltmore.
- 4 Boars by Dorset Lee of Biltmore; Dam, Imported Danesfield Vain Maid.
- 1 Boar by Dorset Lee of Biltmore; Dam, Berks Pansy of Biltmore.
- 1 Boar by King Chimes; Dam, Toppers First of Kenilworth.
- 1 Boar by Dorset Lee of Biltmore; Dam, Topper of Biltmore.

Also a number of Boars by Imported Royal Carlyle, who won first at the Royal Show of England over all classes, and the highest priced six months old pig ever sold. For Descriptions and prices, write EDGAR B. MOORE, Biltmore, N. C.

Berkshire Pigs.

I have about 30 pure-bred Berkshire Pigs from 2 to 4 months old which I will sell at prices all too low, considering their quality and breeding which I assure you is the best.

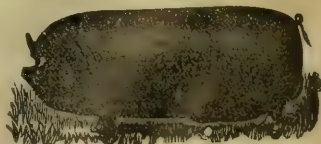
Write me your wants or come and make your own selection. You'll get a bargain.

Holstein Friesian Cattle; Barred Plymouth Rock Fowls.

THE GROVE STOOK FARM

N. & W. and So Ry.

T. O. SANDY, Prop. Burkeville, Va.



Tell the advertiser where you saw his ad.

The trees will soon require all the food the land can give them,

4. The only way to hasten the decomposition of corn stalks in a manure heap, is to compost them, and keep them well soaked with the urine from the stables. If they are not mixed with the excrement of the stock their decomposition may be hastened by composting with lime and soil. Corn stalks should always be cut up before being fed to stock, and they will then absorb moisture freely, and soon decompose in the manure pile.

5. The Bilyue peach (Comet) can be, and is, being successfully grown in Piedmont, the Valley, and the Appalachian sections of this State.

6. Fulcaster, Fultz, Poole, Harvest King, and Currells Prolific, are good varieties for the South. We hope to publish the report of the tests of varieties of wheat made at Blacksburg this year in this or next month's issue.

7. Kainit would be equally effective in killing the worms and grubs as salt, and in addition would act as a fertilizer, supplying potash. Salt is of no value as a fertilizer.—Ed.

PEAS AND SORGHUM OR KAFFIR CORN.

When ought peas and sorghum mixed to be cut, also peas and Kaffir corn.

G. G. TAYLOR.

Mecklenburg Co.

See our articles on Work for the Month, in this and the August issue. With the excessive vine growth this year, owing to the wet season, it will not be safe to wait for pods to form and partially ripen or the curing will be too long delayed. Cut as soon as the weather will allow.—Ed.

BASIC SLAG—PEANUT PICKING MACHINE—MOTIVE POWER—CANADA WOOD ASHES.

1. My attention has been directed recently to Basic slag for fertilizer. I see it recommended in place of acid phosphate and lime. I am altogether uninformed as to the merits of Basic slag. I have never seen it used. How does Basic slag compare with a good grade of acid phosphate as a fertilizer? I notice the price is about the same. Should Basic slag be used in the fall or spring? What is the analysis of Basic slag? Which would be the cheaper for grain sown in the fall, lime and acid phosphate or enough Basic slag to supply the need?

2. What is the best and cheapest peanut picking machine, with which you are acquainted?

3. Which is preferable, an engine or horse power to run farm machinery?

4. Have you ever seen Canada hard wood ashes used as a fertilizer for peanuts?

B. T. WOOD.

Perquimans Co., N. C.

1. Basic slag, sometimes advertised



Farmers Say

SLOAN'S LINIMENT

Is the Best Remedy on Earth.
Kills a Spavin Curb or Splint.
Very Penetrating. Kills Pain.

DR. EARL S. SLOAN, 615 ALBANY STREET, BOSTON, MASS.



SHEEP, HOGS, AND POULTRY.

Special Offerings for July.

CHOICE REGISTERED

SHROPSHIRE and SOUTHDOWN

SERVICE RAMS AND BRED EWES.



Lambs of both Breeds and all of the best Imported Strains. Now is the time to order your Ram for Service this Fall.

Four Grand September 1905 BERKSHIRE BOARS, weight over 250 lbs. Price \$32.00 each. Younger Boars, Bred Sows and Pigs 2, 3, and 4 months old. Fine Service Boars, Bred Sows, and Pigs all ages of Chester White and Poland China.

Some Grand Pekin Ducks mated from the best strains, \$2.50 each. Now is the time to order your bird for next season. Choice matings of Plymouth Rocks, Wyandottes, B. I. Reds, Buff Orpingtons, Buff, White and Brown Leghorns, Minorcas and others. Fancy lot of Brown Leghorn prize winners. Write for prices. Eggs for hatching. 200 pair Homer Pigeons, a grand lot of birds. \$2.00 per pair in lots of five or more pairs.

Address, JAMES M. HOBBS, 1521 Mount Royal Avenue, Baltimore, Md.

BERKSHIRE HOGS.

BEST ENGLISH AND AMERICAN STRAINS.

YOUNG STOCK AT REASONABLE PRICES.

EDWARD G. BUTLER, "Annefield Farms,"

BERRYVILLE,

VIRGINIA.

GLENBURN BERKSHIRES

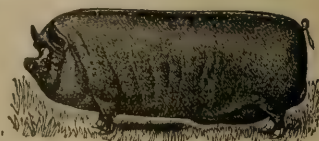
Pigs out of splendid IMPORTED and American sows, and by grand IMPORTED boars, including LOYAL HUNTER, the largest and best boar ever imported into this country. These represent the best herds and greatest winners of England and America. Have recently added to our herd, two splendid daughters of LORD PREMIER in pig by PREMIER LONGFELLOW, grand champion of the World's Fair. Also two superb COMBINATION Sows in pig by the great MASTERPIECE, the highest priced boar of the breed. A. J. C. C. Jersey cows, bulls and heifers for sale. Mention this paper.

J. D. KIRK, Roanoke, Va.

VALLEY COTTAGE FARM

BERKSHIRES

Extra choice pigs at low figures for the summer. Baltimore and other imported blood. Herd headed by 2 Royal Boars. C. S. TOWNLEY, The Hogman, Red Hill, Va.



Tell the advertiser where you saw his ad.

IMPORTED

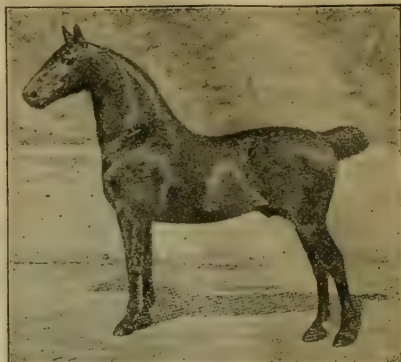
French Coach Stallion Javanais

FOR SALE: RICH SEAL BROWN, 16.2 HANDS high weighs over 1800 lbs. foaled May 1887 Imported July 1893; sired by the great Agnadel, dam Rapide

He is a magnificent specimen of the breed, a splendid individual and withal a most prepotent sire, having a most promising lot of youngsters at present. He is sure to make money for anyone who can use him. The Hon. Jos. C. Sibley, Member of Congress from Pa., says of his get: "I would give \$200 more for a team from Javanais, every other point being equal, than from any other Coaching Stallion I ever knew, because of their good disposition, fearlessness and soundness."

I will sell him for \$500 or exchange him for other stock. Don't hesitate to write me for further particulars.

WALTER E. HATHAWAY, White Stone, Va.



IMPORTED JAVANAIS.

under the name of Odorless phosphate, is a refuse product from steel making, and has been for many years successfully used in England and on the continent of Europe, and to some extent in this country. It varies in composition, containing from 14 to 23 per cent, of phosphoric acid, largely in a slowly available form, and from 41 to 52 per cent, of lime. Its availability largely depends on the fineness of the grinding, and it should be bought on a guarantee of the phosphoric acid contained and its fineness. It ought to be practically an impalpable powder—like flour. Slag meal exerts a very active influence upon nitrification of nitrogenous matter in acid soils. Since this action is due to the free lime in the slag, it follows that with an equal content of phosphoric acid that slag will be most effective in acid soils which contain the largest amount of uncombined lime. In England and on the continent of Europe it has been found most effective in acid soils which contains in action than acid phosphate, being much more comparable with raw phosphate rock. It should be applied in the fall and winter to give it time to become available before the crop calls for it. For wheat we should prefer to use acid phosphate or at least part acid phosphate and part slag. If slag is used there is no necessity to use lime also.

2. We are unable to say which is the most effective peanut picker. Write the Stratton & Bragg Co. and George W. Burgess, both of Petersburg, whose advertisements you will find in this issue, for information on this subject. They will tell you which machine sells best.

3. We prefer an engine to a horsepower for running farm machinery, as the power is so much steadier. Now that gasoline engines are so effective and require so little skilled attention they are in our opinion the ideal

SUNNY HOME HERD —OF— Aberdeen - Angus Cattle.

We make our living breeding Angus cattle, consequently we must breed the sort that will sell at all times. Our experience, gained through a long term of years; convinces us that this sort is produced only by mating cattle of the very choicest bloodlines and highest individual merit. We maintain a good-sized herd of females, every individual of which, has for sire, a great prize-winning bull. To mate with these great females, we use bulls that have demonstrated their ability to make good. Our sales prove our theory of breeding to be correct. We do business every week in the year. For herd breeders, write A. L. FRENCH, Prop., R. F. D. 2, Byrdville, Va.



The Delaware Herd of

ROYAL ANGUS CATTLE

is not surpassed either in breeding or individual animals by any herd in the East. At the head of our herd is

PRINCE BARBARA, 68604.

the son of the great \$9,000 Prince Ito. Females of equally choice breeding. Write your wants. Remember, we take personal care of our cattle; keep no high priced help; incur no expense of exhibiting; all of which enables us to offer stock at equitable prices. Send for pamphlet.

15 Bulls from 2 to 15 months old for sale.
MYER & SON, Prop. Bridgeville, Del.

Jersey, Guernsey and Red Polled Cattle

FOR SALE.—A few extra good bulls and heifer calves now ready.

Berkshire Pigs

ready for immediate delivery.

Beautiful Fox Terrier Puppies—great ratters.

M. B. ROWE & CO., - Fredericksburg, Virginia.

When corresponding with our advertisers, always mention The Southern Planter.

power for the farmer. Alcohol driven engines will no doubt shortly be also commonly used.

4. Canada wood ashes are not frequently used for peanut growing. A more economical potash fertilizer can be used in muriate of potash or kainit, whilst common rock or shell lime is more economical as a source of lime.—Ed.

SAND BRIER.

Please tell me how to rid a bluegrass sod of sand briers. I clipped the field last year with a mower and have been pasturing with sheep for a number of years, but the briers are increasing yearly.

SUBSCRIBER.

Loudoun Co., Va.

If in spite of mowing and grazing by sheep the briers still persist the only way to get rid of them is to dig them out. Mowing off and grazing by sheep should however get rid of them if persistently followed-up.—Ed.

PLANTAIN.

How can you kill plantain. We have several fields from which we have just cut the wheat off, and the plantain has come up very thick.

CHARLOTTE NOURSE.

Fauquier Co., Va.

The only way to get rid of the weed is to plow the fields as soon as possible and cultivate frequently to prevent a new growth. Next season grow a clean cultivated crop and take care to kill out all plantain that may sprout. Where cultivated crops cannot be grown persistently use the mower or scythe and thus prevent the maturity of seed.—Ed.

DISEASED TOBACCO.

I send you to-day by express a plant of diseased tobacco. What is the disease and the cause and cure.

T. E. KIRK.

Brunswick Co., Va.

As we were unable to say what the disease affecting the tobacco plant was we sent same to the Bureau of Plant Industry Department of Agriculture with a request for a report thereon. The following is the reply received:

The disease with which the plant has been attacked is what we term "ring spot," and is most severe in Virginia, but has been reported from North Carolina and Kentucky. Although the trouble has been studied in our laboratories for several years, definite and satisfactory conclusions have not yet been reached. Many examinations have failed to reveal the presence of a fungus, or bacterial parasite, but we feel satisfied that it is a physiological trouble resulting from unfavorable cultural conditions. Chief among these, we believe, is the

Every Farmer Knows That The DE LAVAL CREAM SEPARATORS

are in a class by themselves as the best separators. But many have the mistaken idea which competitors help to magnify, that they are "expensive" and that something "cheaper" will do in their stead.

The Facts Are That The DE LAVAL CREAM SEPARATORS

are not only the best but at the same time by far the cheapest—in proportion to the actual capacity and the actual life of the machine.

These are simple facts easily capable of proof to any buyer who will take the trouble to get at them and who need only apply to the nearest DE LAVAL agent or send for a catalogue to do so.

THE DE LAVAL SEPARATOR CO.

RANDOLPH & CANAL STS.
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1213 FILBERT STREET
PHILADELPHIA
9 & 11 DRUM ST.
SAN FRANCISCO

General Offices:
74 CORTLANDT STREET,
NEW YORK.

109-113 YOUVILLE SQUARE
MONTREAL
75 & 77 YORK STREET
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14 & 16 PRINCE STREET
WINNIPEG

Jerseys and Berkshires AT BILTMORE FARMS, BILTMORE, N. C.

Where they are bred right and made right and
YOU CAN GET THEM AT REASONABLE PRICES.
Now is the time to buy while we are in the notion to sell a few good ones at attractive prices.

DON'T MISS THIS OPPORTUNITY.

If you want a good bull, a good heifer, write us.

If you want choice Berkshires with size, finish, and early maturing qualities from the most prolific families of prize winning stock, write us.

**Address BILTMORE FARMS,
R. F. D. No 2, Biltmore, N. C.**

excessive use of a commercial fertilizer, and the practice of introducing it in the holes into which tobacco plants are to be set. Well rotted stable manure should be strewn broadcast over the field and plowed under the following spring. At the same time or just previous to plowing, it would be well to add a commercial fertilizer, also scattering it over the field. In wet seasons the injury from the local distribution of the fertilizers is not so great as the nutrient solutions are properly diluted for the needs of the plants by the large amount of water which has entered the soil.

B. T. GALLOWAY,
Chief of Bureau.

TURKESTAN ALFALFA.

Is the Turkestan alfalfa different from the American alfalfa? If so what is the difference? Does the Turkestan produce a heavier crop than does the American?

H. B. C. GENTRY.

Rockingham Co., Va.

Turkestan alfalfa is a variety introduced into this county by the Department of Agriculture in 1889-90 from Asia. It has some value over the common variety for certain sections of the country. It stands frost better and is also not affected by alkaline soils so seriously. It seems from the experiments made so far to be better adapted for the northwest than for the East and South. The reports of experiments made with it in the South are so far not encouraging.—Ed.

GRASS FOR NAME.

Enclosed I send you a specimen of grass which grows on my place, please be kind enough to give its name both botanical and the common term.

MORTON G. GOODE.

Mecklenburg, Co., Va.

The grass is Muhlenbergel sylvatica, commonly called wood muhlenberg. It will supply some grazing but it is of not sufficient value to make it worth while to cultivate it.—Ed.

WILD CARROTS AND DAISIES.

There has developed on my lands a heavy growth of wild carrots and daisies—principally the former (carrots) deep rooted. Will the carrots grow in any soil? Are they an improver or exhauster of the soil.

C. R. POLLARD.

Amherst Co., Va.

Wild carrot and Ox-eye daisy will grow upon almost any soil. They are pestiferous weeds and impoverishers of the soil and should be got rid of. The carrot can be got rid of in arable land by clean cultivation. In meadows it can be got rid of by cutting down with the sythe for two years each year before it blooms. It is a biennial, and

Hygeia Farm Holsteins.

The Finest Herd of Registered Holsteins in the Southern States

COWS—THE JESSIE VEEMAN FAMILY

headed by that grand individual, JESSIE VEEMAN A., and including seven of her daughters justly comes first.

JESSIE VEEMAN A. is admitted by the best judges to be one of the finest types of the Holstein cow, both in conformation and productive ability. Many honors of the show ring have fallen at the feet of this "Bovine Queen." In 1903 at the New York State Fair, she was adjudged CHAMPION COW. Official record 26.25 lb. butter in 7 days with an average milk production of over 83 lb.

JESSIE VEEMAN C., the oldest daughter, closely resembles her mother in outward conformation. She carried off the highest honors at the New York State Fair in 1905, against strong competition. She has just completed a record of 20.4 lb. butter in 7 days.

JESSIE VEEMAN HENGVERVELD. This is one of the greatest producers of this wonderful family. At 3 years old, she produced 16.8; at 4 years, 20.33; and at 6 years, she produced 21.4 lb. of butter in 7 days, the last record being made in very hot weather and under unfavorable circumstances.

The other five daughters are individuals of the highest merit, both in daily conformation and in individual excellence.

FRONTIER JESSIE VEEMAN, 19.4; JESSIE VEEMAN DIONE, 14.98; BERYL JESSIE VEEMAN A., (at 2 years), 9.68; JESSIE VEEMAN A. 2D (at 2 years), 14.49; JESSIE VEEMAN DE KOL (Untested).

JOE BACH JOSEPHINE

another famous member of the herd, is one of the five cows that won the "dual purpose test" at St. Louis in 1904. Her A. R. O. Record is 23.83 lbs. butter in 7 days.

HULDA ABEKERK DE KOL, granddaughter of DE KOL 2ND, has just completed a record of 19.87 lb.

SCOTIA 4TH, A. R. O. Record, 20.18 lbs. butter in 7 days.

NETHERLAND FANCY ROSETTA, A. R. O. Record, 20.53 lbs butter in 7 days.

COUNTNESS DORINDA DE KOL, A. R. O. Record, 20.37 lbs. butter in 7 days.

PRINCESS KORNDYKE DE KOL. This is a very fine individual whose breeding shows a combination of the blood of DE KOL 2ND, BELLE KORNDYKE, JESSIE BERTS, and NETHERLAND HENGVERVELD. The average official record of two of her nearest dams is 24.43 lbs. butter in 7 days.

AALTIJE DE KOL, 17.33; Shadeland Dulcibel 4th, 16.427; ANZALETIA PAULINE PAUL 2D (at 2 years), 10.143; MANOR GRACE PIETERTJE (at 1 year, 9 months), 9.16; DAISY PEOPLES, 19.48; LADY OF BURTON AAGGIE, 17.73; LADY OF HILLSIDE (Untested).

BULLS—PONTIAC CALYPSO'S SON.

This is one of the finest of the "IMPERIAL PONTIACS," partaking at once of the individual excellence, both in conformation and production, of his two wonderful grand-sires, HENGVERVELD DE KOL, and DE KOL 2ND'S PAUL DE KOL. His dam, PONTIAC CALYPSO, is one of the greatest producers of the daughters of HENGVERVELD DE KOL. As a 3-year-old, she produced, during the hottest weather of July, 23.5 lb. of butter in 7 days. She is one of the ten daughters of HENGVERVELD DE KOL who with first calf produced an average of 17.75 lb. butter in 7 days. Another half-sister has a record of 23.41.

His sire, BERYL WAYNE'S PAUL DE KOL, has over 40 A. R. O. sisters, one of which is AAGGIE CORNUCOPIA PAULINE, the WORLD'S CHAMPION COW (34.31). He is the sire also of SHADYBROOK GERBEN PARTHENEA 4TH, who holds the world's record for production under 2 years old, having produced at 1 year, 8 months, in 7 days, 17.86 lb. butter. The three nearest dams of this young bull have records averaging practically 26 lbs.

KING ORMSBY FRIEND

This bull is an individual of exceptionally good conformation, fine enough to show in any company, and good enough to be at the head of any herd. His dam, PAULINE DE KOL MUTUAL FRIEND, produced under 2 years old, in an official test, 16.22 lb. of butter in 7 days; and again, as a 3-year-old, has placed to her credit 19.55 lb. She was from DE KOL KONINGEN PAULINE, (23.801), and sired by the youngest son of DE KOL 2D, DE KOL 2D'S MUTUAL PAUL, the youngest bull of the breed having a 25 lb. daughter. KING ORMSBY FRIEND was sired by DUCHESS ORMSBY BUTTER KING. His dam, DUCHESS ORMSBY, made an official record of 24 lb. 4.4 ex., her milk showing 5.44 per cent. of fat.

For the purpose of introducing Holstein blood into the South and proving the profit of grading up our herds, this bull will serve a limited number of pure-bred cows of any breed and good grade cows for \$5 each. Arrangements can be made by mail.

I am prepared to furnish the best pure bred Holstein-Friesian cattle from a single calf to car load lots, every animal guaranteed as represented.

For further information come to Hygeia Farm and receive a cordial welcome, or write

SAMUEL ADAMS ROBINSON, M. D., Prop.

COVESVILLE, Albemarle County, Virginia.

therefore must be followed up for two years. The Ox-eye daisy is more difficult to eradicate and can only be effectually suppressed by putting the land into arable cultivation with clean hoed crops.—Ed.

GRASS FOR NAME.

We enclose head of grass which grows promiscuously on both our Edgewood and Past Oak farms. What is it? Has it any value for hay or pasture? It will grow anywhere and is hard to kill, but likes damp ground most. Find some heads six inches long.

ZENO MOORE.

Edgewood Co., N. C.

The grass is wild foxtail and is widely spread all over the country. It is of but small value as a forage plant usually, though when it grows luxuriantly as in this wet year it makes pretty fair grazing for young stock, and hay that will help to carry stock through the winter as long feed. Its growth should not be encouraged as it is apt to crowd out other more nutritious grasses.—Ed.

ST. JOHN'S WEED.

I see Mr. S. F. Thomas, of Tennessee wants a good remedy for the poison of St. John's weed on horses. I will give you a good one: Take one ounce of pure sugar of lead, dissolve in a pint of warm water; wash with this lotion once or twice a day until the sores dry up; then grease with vaseline or lard and it will hair over all right.

J. R. THOMSON.

Fauquier Co., Va.

Mrs. G. P. Smith, of Caroline county, Va., kindly sends us the following receipts in response to our request in last issue.

GRAPE JUICE.

Extract the juice of perfect grapes the same as for jelly. Let the same come just to boiling heat in a porcelain kettle. Bottle, or can, and seal; put in a cool, dark room, and it will keep perfect for years.

Pick the grapes from stems and heat the fruit in a porcelain lined kettle; press out the juice, or strain through flannel. To each gallon of juice add one pound of sugar and two quarts of water. Boil slightly, skim and bottle, or can, carefully sealing it; keep in cool place until needed for use.

COWPEAS AS IMPROVERS.

Last year I put eight acres in peas, as directed by Prof. Massey, in the Southern Planter. Six acres were made into hay and two were cut and let lie. This spring the whole tract was put in corn and to my surprise the harvested ground has the better corn. All, however, is superior. An acre adjoining had no peas preceding

A Good Thing Never Dies

—HENCE—

Dr. Jos. Haas' Hog Remedy Still Lives

For 30 YEARS Dr. Jos. Haas' Hog Remedy has been tested without failing and is conceded to be the BEST HOG REMEDY ON EARTH.

The old and reliable INSURANCE PROPOSITION is still open to all swine raisers—wherein I will agree to PAY FOR ALL HOGS THAT DIE when my REMEDY is fed as a preventive. Write for plan or read particulars in my book "HOG LOGIC," which will be sent FREE for the asking. A complete treatise on PROFITABLE SWINE-RAISING.

30 DAYS FREE TRIAL OFFER—Any reader of this paper remitting direct to me for a can or half can of my Remedy at prices below, and will give same a fair trial for 30 days, will have his money refunded if at the end of that time he is not satisfied that his hogs have been benefited, that the Remedy will do all that is claimed for it and that it is the best Hog Remedy he has ever used.

PRICES:

25-lb Can, - - \$12.50, Express Paid
Half Can, (12½ lbs), \$6.50, Express Paid
Packages, \$2.50, \$1.25 and 50 Cents Each

NONE GENUINE WITHOUT MY
SIGNATURE.

DR. JOS. HAAS, V. S., - - Indianapolis, Ind.

LYNNWOOD STOCK FARM

If the best Percheron Horses and Shorthorn Cattle are not to be found at the Lynnwood Stock Farm, how do you account for the fact that Percherons from this farm have taken more prizes at Hagerstown, Frederick, Md., and the Rockingham Horse Show than all competitors combined? At Hagerstown, I took 9 firsts and 1 second, 10 head shown; same at Frederick. My winnings at the Rockingham Shows have caused the management to bar my draft teams in all but the Sweepstakes class.

My record as a breeder and a salesman gives me the greatest satisfaction as I have never even been requested to take stock back. I attribute this to the fact that I always do what I say, and more, for the purchaser, which insures satisfaction.

I have no such price as \$3,000 and upwards on Stallions, but I have beaten in the Show Ring, horses which sold for that amount.

My stock is kept in good growing condition, but not pampered and raised without exercise hence, it invariably gives satisfaction as breeders and workers.

Come and see what I have and take no competitor's word, as my books are open to all intending purchasers. Some men do lie, but figures never.

JOHN F. LEWIS, Lynnwood, Rockingham Co., Va.

Lewis Station (N. & W.) on farm.



ACTOR 26th, 136328

INGLESIDE HEREFORDS

Owned by S. W. Anderson, Blaker Mills, Greenbrier county, W. Va.

A choice lot of BULLS, COWS, and HEIFERS for sale. Also a few POLLED HEREFORD BULLS recorded in the National Polled Hereford Records. Write for catalogue and prices Farm near Alderson, W. Va., on the C. & O. E. R. Telegraph and Telephone office, Alderson W. Va.

HEREFORD CATTLE.

HIGH CLASS HERD.

Prices Very Reasonable.

EDWARD G. BUTLER, "Annefield Farms,"
BERRYVILLE, - - - VIRGINIA.

MORVEN PARK.

The Property of WESTMORELAND DAVIS, Esq.

Reg. Dorset Horn Sheep.

Flock headed by Imported Ram, MORVEN'S BEST No. 4132 (C. D. C.), 1st. Prize at English Royal 1904.

We are offering for June delivery, fall born rams weighing, without forcing, at less than six months of age, from 110 to 130 lbs., and averaging 120 lbs. Fit to head any flock.

Large White Yorkshires.

Registered Pigs for sale. Herd headed by Imported boar HOLYWELL HUDDERSFIELD No. 4850, A. Y. C., 2nd prize at Yorkshire (England) Show, 1904. Only time shown.

All pigs either bred on the place and descendants of, or directly imported from the prize winning herds of England. These pigs are prolific, hardy, and they are economical feeders. They are the bacon breed of England and the coming breed of America.

REG. GUERNSEY CATTLE.

TUBERCULIN TESTED.

Herd headed by bull, IMPORTED TOP NOTCH No. 9023 A. G. C. C. son of Imported Beda. Advanced Register No. 136, official yearly butter record 640 lbs. of butter; assisted by MAINSTAYS GLENWOOD BOY No. 7607 A. G. C. C., son of Jewel of Haddon, Advanced Register No. 92, official yearly record 463 lbs. of butter.

We are offering a bull by Imported Top Notch out of Imported Claremont Ruth IV, Advanced Register No. 130, official yearly record 474 lbs. butter, average test 5.6 per cent. butter fat. Also bull by Imported Top Notch out of Princess Dorothy who has just entered the advanced Registry. This bull on dam's side belongs to the Honoria family and is closely related to Guernsey Champion, 1st. at the St. Louis Exposition. Also other bulls from approved deep milking dams.

ALL STOCK IN FINE CONDITION.

Flocks and herds may be viewed by appointment.

Address

**LIVE STOCK DEPARTMENT, MORVEN PARK,
LEESBURG, LOUDOUN CO., VA.**

The American "Fontaine" Shock Binder.

THE QUICKEST SELLING TOOL EVER PUT ON THE MARKET.

The Corn Growers' Friend. Saves its cost ten times in one corn crop.
Every farmer who cuts and shocks his corn must have one or more.

With this simple device one man can bind the shocks as fast as 10 or 15 men can cut and shock the corn.

Approved by every State Experimental Farm and Agricultural College where tried.

TESTIMONIAL.

STATE TEST FARM, DEPT. OF AGRICULTURE.

Saxe-Va. Nov. 9, 1905.

We have given the Fontaine Shock Binder a thorough trial this season and I consider it one of the finest implements that we use on the farm. One man with it can do more work, and do it more thoroughly than two men can with a rope or wire. Our one corn field is a steep hill side on which not a single shock has been blown down, although we have had some very high winds since the corn was shocked.

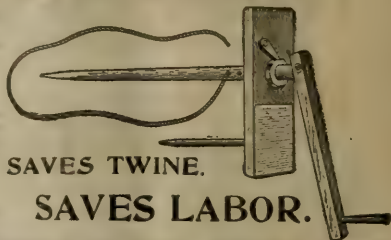
B. B. HEIGES, Manager, Virginia Test Farm.

\$50 PER WEEK. YOU CAN MAKE IT.

Live, active canvassers wanted in every County and Township in the Union where corn is grown. Our salesmen are averaging ten to fifteen sales per day. You can make \$50. per week. Write or telegraph for Agency for your locality. Remit \$2. by registered Letter, Postal or Express Order, and we will send prepaid one of the Shock Binders, and our contract, and letter of instructions, and order blanks

Reference W. K. Bache & Sons, Implement Dealers, Richmond, Va.

AMERICAN SHOCK BINDER CORPORATION, No. 8, S. 10th, St., Richmond, Va.



SAVES TWINE.

SAVES LABOR.

and I may get five bushels of corn off it. I wish to get a six-acre unproductive grass tract into peas next year. What now should I do with it to attain desired end?

R. S. LACEY.

Alexandria Co., Va.

Plow the land at once and apply from 25 to 50 bushels of lime per acre and harrow in lightly. If the subsoil be clay, break this with a subsoil plow at the time of plowing. Sow a mixture of crimson clover, wheat, oats and rye to hold the land from washing and wasting. In May plow down the winter growth and apply 250 pounds of acid phosphate per acre and seed the peas.—Ed.

PEA WEEVIL.

Will you please tell me how the bugs originate in our common field pea, and if there is any practical method of keeping the peas over till the second year for planting. Some tell me they are a natural production of the pea, while others contend they come from eggs deposited in the bloom, &c.

SUBSCRIBER.

Forsyth Co., N. C.

The weevil is produced from eggs laid on the vines in the field. These are stored away with the peas when gathered and hatch out at varying times during the winter and then commence eating into the peas. To prevent this injury the peas should be put into a tight bin or barrel and have a saucer full of carbon bisulphide placed on the top. The fumes of this will sink through the whole depth of peas and kill all the weevils which have hatched. If repeated at intervals during the storing the peas can be kept sound. Have no lights about when using the carbon bisulphide as it is very explosive. The

Farming Pays

handsome dividends when the farmer takes advantage of

Labor Saving

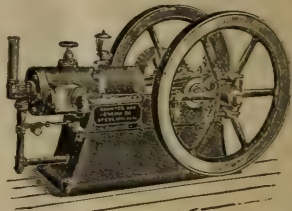
Machinery.

Gasoline Engines,

Wood Saws,

Wind Mills, Rams,

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all save labor. Let us quote you.

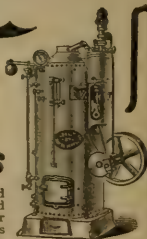
Sydnor Pump & Well Co., Inc.,

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Steam Is Best

Don't be misled. You will get more real efficient service from the old reliable steam power than any other.

**Leffel
Engines**



have none of the uncertainties and annoyances of gasoline engine and other powers. No other power equals steam; no other engine equals a Leffel for planer's use. Horizontal, Upright, Portable. Send for free book and investigate before you buy power.

James Leffel & Co., Box 183, Springfield, Ohio.

The Right Way to Grow Hogs

Pigs have sometimes been called "mortgage lifters," and really it seems they deserve the title. What other animal from : beginning of only two pounds can grow to 1,000 pounds weight? And bear in mind statistics prove that it costs less food to grow a pound of pork than either beef or mutton. Do you know why? It is because of the large digestive capacity of the hog.

It is certain that all growth and milk production is in proportion to the amount of food digested and assimilated. The right way to grow hogs, therefore, is to take proper account not only of the feed, but the digestive system.

DR HESS STOCK FOOD ATONIC

the prescription of Dr. Hess (M.D., D.V.S.) was intended for this purpose in particular. It takes charge of the digestive organs, compelling them to do their proper work.

Horses, cattle, cows, hogs and sheep are all dependent upon the digestion for every pound of growth and every ounce of milk. The cost of Dr. Hess Stock Food is paid back many times over, therefore, no stockman or dairyman can afford to be without it. Besides hastening maturity, Dr. Hess Stock Food cures and prevents disease.

Dr. Hess Stock Food owes its origin to the medical and veterinary colleges from which Dr. Hess graduated. Such medical authorities as Professor Winslow, Professor Finlay Dun, Professor Quinlan and all the leading scientists recommend bitter tonics for improving digestion, iron for blood and tissue building, nitrates of soda and potassium for assisting nature in expelling poisonous material from the system. These ingredients and many others make up Dr. Hess Stock Food, and it is sold on a written guarantee.

100 lbs. \$5.00. 25 lb. pail \$1.50 } Except in Canada
Smaller quantities at a slight advance } and extreme
West and South

Where Dr. Hess Stock Food differs in particular is in the dose—it's small and fed but twice a day, which proves it has the most digestive strength to the pound. Our Government recognizes Dr. Hess Stock Food as a medicinal tonic, and this paper is back of the guarantee.

FREE from the 1st to the 10th of Each Month—Dr. Hess (M.D., D.V.S.) will prescribe for your ailing animals. You can have his 96-page Veterinary Book any time for the asking. Mention this paper.

DR. HESS & CLARK, Ashland, Ohio

Also manufacturers of Dr. Hess Poultry Pan-a-c-e-a and Instant Louse Killer.
INSTANT LOUSE KILLER KILLS LICE.

fumes should be confined in the bin or barrel for twenty-four hours and then the peas be aired well and the smell of the drug will pass off. The peas are in no way injured for feeding by this treatment.—Ed.

SHEEP—COW PEAS—CRIMSON CLOVER.

1. What breed of sheep is the most desirable for this section and which is the best and cheapest way to start a good flock?

2. What kind of peas can so as to mature at the same time as the corn, as I want to turn the hogs on them as soon as the corn is fit to gather?

3. Do you think there is any chance of my getting a stand of crimson clover on new ground that was cleared this spring, and is now in corn and peas. My idea was to cut the corn off and use a Cutaway harrow to cut the pea vines up and let them lay on the ground and sow crimson clover and rye.

H. J. WOODWARD.

Powhatan Co., Va.

1. We are strongly in favor of Shropshire sheep for this State as a general purpose sheep. Where very

MONTVIEW JERSEYS.

We have for sale, at reasonable prices, Bull calves sired by our prize-winning Imported Marett's Flying Fox and also one masculine son of the famous Forfarshire.

MONTVIEW BERKSHIRES.

MANOR FAITHFUL, pronounced by Geo. F. Weston, Superintendent of Biltmore Farms, the BEST BOAR HE COULD FIND IN ENGLAND. Sold for \$615, and weighed 1100 pounds in show condition. We have now pigs by this great boar out of splendidly bred sows. Only a limited number will be sold.

We also have a fine litter from an imported sow by BARON PREMIER 3rd, the boar that was first prize-winner in his class at the St. Louis Exposition.

Montview Farms,

CARTER GLASS, Owner.

C. L. STAHL, Manager,

Box 513, Lynchburg, Va.

EVERGREEN FARMS

offers for sale Registered Jersey Cattle, male and female; Registered Berkshire Hogs, 2 months old; S. C. Brown Leghorns from Prize-winning stock. Write your wants.

W. B. GATES, Rice Depot, Pr. Edward Co., Va., N. & W. Railway.

early or winter lambs are desired probably the Dorsets are more desirable as they are more certain to produce this class of lambs. The Shropshire is a good producer of medium early lambs of fine quality, an excellent mutton sheep and makes a good fleece. It is also one of the hardest sheep and is thoroughly acclimatized. The cheapest way to start a grade flock is to buy native Merino grade ewes from the mountains of the Piedmont sections of this and the adjoining States of North Carolina, Tennessee and West Virginia, and then to breed them to a pure bred Shropshire buck. Two or three crosses of the Shropshire will give lambs almost perfect Shropshire in type.

2. The New Era, the Clay, or the Whippoorwill are the best varieties for this purpose.

3. Yes, we think if you sow a mixture of crimson clover, wheat, oats and rye as advised in the Planter, you will get a stand, especially if you apply twenty-five bushels of lime per acre before seeding and cut it in with the harrow.—Ed.

VIRGINIA OR CANADA BLUE GRASS.

Where and of whom can Virginia, or Canada blue grass seed be obtained,

A SUBSCRIBER.

Jonesville, Va.

The seed can be obtained from any of the seedsmen advertising in The Planter.—Ed.

SICK PIGS.

I have two litters of pigs farrowed June 1st, have been weaned about four weeks and have been doing nicely up to the last week. Since then I have lost seven. They seem to get weak in the hind legs and just drag them about, and in a few days they die. Can you tell me what to do for them.

O. L. BRAUER.

Powhatan Co., Va.

Pigs suffering in the way described are usually thought to be affected with worms in the kidneys or parts adjacent and turpentine is usually advised to be given in the slop food two or three times a week for a week. The dose usually given for small pigs is about a dessert spoonful each time. Recently this subject has been under investigation at one or two of the Experiment stations. Dr. Peters, the veterinarian at the Nebraska Station, says the result of his investigation leads him to the conclusion that the cause is weakness of the bones rather than worms. The pigs should have bone meal fed to them in their food and have access to lime scraps or old plaster.—Ed.

A Neat Binder for your back numbers can be had for 30 cents. Address our Business Department.

To Insure Jellies and Preserves

Your jellies and preserves will keep perfectly if you seal each glass or jar, with a thin coating of Pure Refined Paraffine. Easiest way in the world to keep fruit, and the surest. Simply pour a little melted paraffine over the contents of the glass, or, if it is a jar, dip top *in* melted paraffine.

PURE REFINED PARAFFINE

is odorless, tasteless, acid-proof, and will positively exclude outside air from fruit jars, or jelly glasses. Useful in numberless ways—in the laundry, when ironing, to make wood tubs harmless to butter, as a wood filler, a floor wax, etc.

Sold in cakes of about one pound weight by all dealers—full directions with each cake.

Write for attractive little folder telling about Pure Refined Paraffine and its many uses.

STANDARD OIL COMPANY.

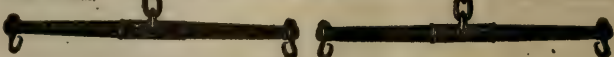


The Everlasting Tubular Steel Plow Doubletree

Guaranteed not to break or bend. Furnished with rings or hooks for trace attachment. Sample orders sent to responsible parties on trial.

Send for our No. 3 Catalogue for 1905.

Contains everything of interest to Dealer or user of Whiffletrees.



PATTERN No. 105 EQUIPPED WITH FORGED TRIMMINGS.

Also manufacturer of Farm Wagon Doubletrees, Neck Yokes and Singletrees.

Pittsburg Tubular Steel Whiffletree Company,
SOLE MANUFACTURERS
PITTSBURG - - PENNSYLVANIA.



\$9.95 for this Big Handsome RANGE

without warming closet or reservoir. With high warming closet, porcelain lined reservoir, just as shown in cut, \$13.95. Made with large square oven, six No. 8 cooking holes, regular 8 size—body made of cold rolled steel plate, Burns wood or coal. All nickel parts highly polished.

are the most liberal ever made. You can pay after you receive the range. You can take it into your own home, use it 30 days, if you do not find it excellent as represented, the biggest bargain you ever saw, equal to stoves sold at double our price, return it to us, and we will pay the freight both ways.

TERMS
SEND A POSTAL CARD and we will mail you FREE our new 1905 handsome steel range, also the most complete line of stoves and ranges in the world. Large illustrations, full descriptions at prices much lower than any one else can make you. Buy direct from manufacturer and save money.

WRITE TO-DAY for our new illustrated Stove Catalogue No. 1084. We will send it to you free of money. No delay in shipping. Read the most successful stove literature ever made. Most liberal terms ever offered, tell him to order.
MARVIN SMITH CO. CHICAGO, ILLINOIS.

A BARGAIN IN Registered Angus Heifers.

A grand lot, and will be sold at FARMER'S PRICES, individually or as a whole. These Cattle are ROYALLY bred, and good enough for any Show Ring.

CARYSBROOK REGINA, No. 39007, CARYSBROOK ROSINA No. 40314, both guaranteed safe with calf to MAX OF MEADOW BROOK, No. 46270.

FOUR EXTRA GOOD HEIFERS, 2 with calf at foot and 2 to calve this fall by above bull. FOUR YEARLING HEIFERS that are good enough to add to any herd in America; they are beauties.

THREE STRICTLY "TOP" HEIFERS that will be one year old this fall.

ALSO, MAX OF MEADOW BROOK, No. 46270, five years old, sired by Bradfute & Son's famous Prize Winner ZAIRE 5TH, No. 13067, dam MAYFLOWER 4TH OF WESTER FOWLIS, No. 6054. He is a sure breeder, and his get is exceptionally fine, is a strictly high class bull in every respect and now weighs close to 2000 lbs. in only fair breeding condition. He is a bargain at almost any price.

I will sell the above animals under a full guarantee. Write me your wants, or better still, come and look them over for yourself.

WOODSIDE STOCK FARM,
R. S. FARISH, Proprietor. **CHARLOTTESVILLE, VA.**

LET US SEND YOU OUR Fall Grocery Price List.

IT POINTS THE WAY TO ECONOMICAL GROCERY BUYING. IT SOLVES THE PROBLEM OF WHAT AND WHERE TO BUY. HERE ARE A FEW PRICES TAKEN AT RANDOM FROM THE LIST.

Pillsbury Flour, per bbl.....	5.25	Bran, per cwt.....	1.05	Old Geneva Gin.....	2.00 per gal.
Gold Medal Flour, per bbl.....	5.25	Ship Stuff, per cwt.....	1.15	London Dock Gin.....	2.50 " "
Dunlop Flour, per bbl.....	4.50	Timothy Hay, per cwt.....	1.00	Five yr. old Gibson	
Obelisk Flour, per bbl.....	4.50	Clover Hay, per cwt.....	.85	Whiskey.....	3.50 " "
Daisy Flour, per bbl.....	4.00	Coarse Meal, per cwt.....	1.40	Five yr. old Moore's	
Best Water Ground Meal, bu.....	.75	Corn and Oat Chop, per cwt.....	1.15	Corn Whiskey.....	3.00 " "
New Irish Potatoes, per bu.....	.75	Straw, per cwt.....	.60	Five yr. old Star Rye	
Gran. Sugar, lb.....	.04	Shucks, per cwt.....	.60	Whiskey.....	2.50 " "
Arbuckle's Coffee, lb.....	.17	Molasses Feed, per cwt.....	1.20	Five yr. old Keystone	
Pure Lard, lb.....	.12	Corn, Oat & Wheat sacks.....	.05	Whiskey.....	2.50 " "
Good Lard, lb.....	.10	Peach Brandy.....	\$2.50 per gal.	Three yr. old Excelsior	
Best Salt Pork, lb.....	.12	Fine Catawba Wine.....	.50 " "	Whiskey.....	2.00 " "
Good Salt Pork, lb.....	.08	Fine Blackberry Wine.....	.60 " "	Two yr. old Old Capital	
Cut Herring, doz.....	.10	California Port Wine.....	2.00 " "	Whiskey.....	1.50 " "
Best Cheese.....	.16	Good Port Wine.....	.60 " "	Five yr. old Virginia	
Large Can Tomatoes.....	.10	California Sherry Wine.....	1.00 " "	Mountain Whiskey.....	2.00 " "
100 lb. Sack Salt.....	.50	Imported Sherry Wine.....	3.00 " "	Five yr. old North Caro-	
Rock Salt, lb.....	.01	Imported Port Wine.....	3.00 " "	lina Corn Whiskey.....	2.50 " "
Corn, per bu.....	.68			Three yr. old North	
Oats.....	.45			Carolina Corn Whis-	
Chicken Wheat per bu.....	.90			key.....	2.00 " "
Small Cans Tomatoes.....	.08			Jugs, free.	

Prices subject to market changes; orders promptly filled and shipped; if in a hurry, phone your order. Remember, we are wholesale as well as retail dealers in groceries, feed, wines and liquors.

J. S. MOORE'S SONS, INC., 18th and Main Streets Richmond, Va.

THE LAND QUESTION IN VIRGINIA.

(Continued.)

CHAPTER III.

How the Torrens System Affects Business Men.

We will now consider how the Torrens System will affect business men, and our view will extend to those in the country as well as to those in the towns and cities.

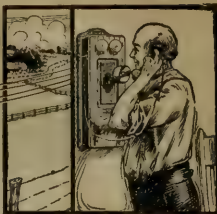
The Homes of Business Men.

In the first place, every business man wants a home. You not only want a home, but you want a home of your own. That early English authority, Sir Edward Coke, great as a lawyer and renowned as a judge, announced this grand sentiment: "For a man's house is his castle," and to this he adds some Latin words: "et domus sua cuique tutissima refugium," meaning "and for every one his home is a place of safest refuge"—sentiments cherished by the people and honored by the law since the sixteenth century. You have the right, therefore, to be certain that the title to your home is good. This at least you should demand of the law. And you may further demand that the law shall not place any unnecessary obstruction in the way of your acquiring a home. Our present laws not only fail to give any assurance of title, but erect many unnecessary obstacles in the path of the home seeker by the antiquated, complicated, slow, uncertain, and costly proceedings required for the transfer of lands. The result is that capital invested in real estate is not only sluggish, but practically buried in many instances. You feel this, and hence you hesitate about putting your money in realty, and until you accumulate large means, you do not dare to buy your own home. Is it not a fact that many a business man would buy a home for his family if he felt he would not be withdrawing that amount of capital from his business absolutely? The Torrens System will relieve you from this anxiety. It is a fact that capital invested in land under our present laws is more or less absolutely withdrawn from business; and it is a fact that capital so invested under the Torrens System will not be so withdrawn. If you have any doubt about the latter proposition, you have only to consult the experience of business men in those countries in which the Torrens System has been tried and is in active operation. For instance, the statistics from Queensland, where out of thirteen million acres all but 16,566 acres had been brought under its Torrens Act in 1899, show that more than 41 per cent. of all mortgages were for sums not exceeding \$500, and that more than twenty-eight per cent. were



DOLLARS

ON THE WIRE



THE TELEPHONE SAVED HIM \$300.00.

Mr. FARMER.
A full Purse and a Telephone go Hand in Hand.
Be up with the Times; Catch the Market Right, Then SELL.

You Need It.
Every Farmer Needs a Phone.
Time and Money Saver.
Costs But a Trifle.

A writer in the Chicago Tribune tells of a cattle buyer who drove into the yard of a farmer about 50 miles from Chicago the other day and made an offer for all the cattle and pigs on hand, delivery to be made at once. The offer seemed a good one, but before closing the farmer said he would speak to his wife. Going to the house he asked his wife to call up a Chicago commission house by telephone. In less than two minutes he was in communication with Chicago and was informed of a rise in prices and advised what a good offer would be at that moment. Within five minutes he closed a deal with the buyer at prices which paid him \$300 more than the first offer.

One Advance Tip on the Market May Mean a Profit More Than Enough to Pay For a Phone For Life.

In Case of Accident or Sickness, the Phone is the quickest of All Messengers. It Will Pay You to Think This Over.

The "WESTERN" Telephone is simplicity itself. Nothing complicated. Every part is easily gotten at. NEVER OUT OF ORDER. The very best money will buy.

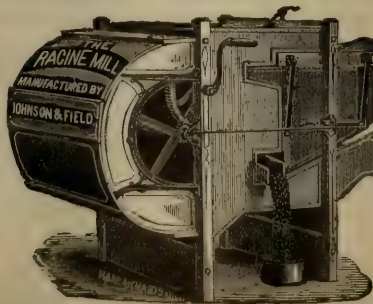
WESTERN TELEPHONES ARE SOLD ON MERIT, WITH A POSITIVE GUARANTEE. MONEY BACK INCLUDING FREIGHT BOTH WAYS, IF NOT IN EVERY WAY SATISFACTORY. Perhaps your neighbor has a "WESTERN" Phone; ask him about it. Any way, send your name, postal will do, for Illustrated Booklet and Catalog on farm phones. Interesting, instructive. They tell all about them, what they cost, how to put them up, etc. Send for these valuable Books to-day and learn how others are making money by using a phone. Send for the FREE Telephone Books to-day. Address,

WESTERN TELEPHONE MANUFACTURING CO.,

73 W. Jackson Boulevard, Chicago, Ill. R.L.L.

ESTABLISHED 1893.

The PIONEER, Independent Factory. Not controlled or owned by any Trust

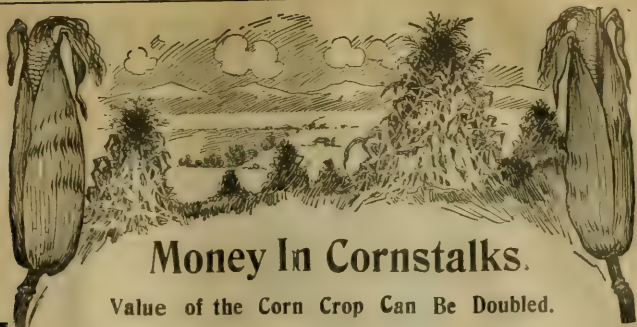


FREE a \$30.00 Fanning Mill. If you've ever seen or handled the famous "Racine" Fanning Mill then write for our free offer. If you are the first in your township we will ask you for the address of other farmers and information about the crops.

This mill will be seen in operation at the State Fair, Richmond, Va., cleaning and grading cow peas, separating large cockle and garlic from seed wheat—also grading seed corn and other seeds.

Leading jobbers in farm implements handle our famous "Racine" Farm, Warehouse and Dustless Fanning Mills. Watt Plow Co. of Richmond, Va., are our general agents. JOHNSON & FIELD MFG. CO., Box 39, Racine, Wis.

Tell the advertiser where you saw his ad.



Money In Cornstalks.

Value of the Corn Crop Can Be Doubled.

When your corn is ready to be harvested, if you have an average crop the fodder will represent about as much value as the ears.

This is a conservative statement, based on the actual feeding value of corn when cut at the right time and properly husked and shredded.

It is now pretty generally known that when corn reaches maturity, about 60 per cent of its feeding value is in the ears, while the remaining 40 per cent is in the leaves, husks and stalks.

Our Government Experiment Stations have proved this by chemical analysis, and have been teaching it to the farmers for a long time.

Have you benefited by their teaching and by the practical experience of thousands of dairymen who have adopted the double profit method of handling the corn crop?

The double profit method is this—just when the ears begin to glaze, the field should be gone over as rapidly as possible with a good corn harvester and binder or harvester and shocker—the right machine will do the work quickly.

In this way you can harvest the whole crop while both the fodder and ears have the most feeding value.

After the corn has been cut, you can run it through the husker and shredder at your convenience—this work is usually done in the fall and winter months.

A good crop of corn yields about two tons of stover per acre. Our Experiment Stations and other practical feeders find that stover is nearly equal to good timothy hay, so it doesn't matter whether there is a market for your stover or not.

You can sell your hay and feed your stover.

Especially will this be true this season, for the hay crop is very light. If you husk your corn in the field, you may think you get a good deal of fodder value by turning your stock into the field in the late fall and winter, but that is a big mistake. Ask your State Experiment Stations or any other recognized authority. They will tell you that the fodder loses its feeding value rapidly when left standing—that the wind and frost and sun dry up the leaves and husks, so that by the time the stock gets to them, there is little left but indigestible, woody fibre.

There is only one way to get the full value of your corn crop—and that is to cut the corn with a harvester and binder or harvester and shocker, and run the fodder through a husker and shredder.

Land values are going up every year. Corn growers all around you are adopting the modern method of handling the corn crop. You plant as many acres of corn as your neighbors do. You cultivate it as well as they do. Can you afford to secure less profit per acre than they do?

The dairymen have solved this problem with the silo. To them a corn binder or a corn shocker is a necessity.

Corn machines—the binder or shocker, and the husker and shredder—have come to be recognized as necessities among corn growers throughout the corn belt.

If you want good corn machines that are made right—machines that will enable you to double the value of your corn crop—investigate any one of the following makes:

McCormick, Deering, Milwaukee, Champion and Osborne Corn Binders; Deering, McCormick and Plano Huskers and Shredders

In each of these machines you have all the advantages made possible by the unequalled manufacturing facilities of the International Harvester Company.

The International Harvester Company owns its own timber lands and saw mills, its own iron and coal mines, its own coke plants and rolling mills from which it produces a large percentage of all raw materials used, selecting, in every instance, only the best material and working it out in the best way in the above great manufacturing plants. These are advantages which no buyer can afford to overlook.

The International lines are represented by different dealers in your town. Call on them for catalogues and investigate these machines.

International Harvester Company of America,
(INCORPORATED.) **CHICAGO, ILL.**

for sums ranging from \$500 to \$1,250. If you wish evidence from some countries nearer home, you can consult the records in Illinois, Massachusetts, and Minnesota. In Cooke county, Illinois, more than \$15,000,000 worth of property have been registered. This embraces 15,000 tracts chiefly of small values. In Massachusetts, more than \$12,500,000 worth of lands have been registered. The Minnesota Act became operative in Ramsey county three years ago, and 5,280 tracts valued at \$6,250,000 have there been registered, with which there have been 1,400 transactions since registration. We can show you a Massachusetts Certificate involving two lots upon which seven transactions are registered between February 25, 1901 and June 15, 1901. One of these transactions was a mortgage of \$3,000 for four months; another, a mortgage of \$4,000 for four months. Then one lot was sold; the first mortgages were released, and two other mortgages were made upon the remaining lot, one of \$3,000 for six months, and finally one of \$5,600 for five years. Who ever thinks of making a loan for three or four months on real estate in Virginia? You can't do it under our present laws on account of delays and costs to be encountered. But the facts mentioned above demonstrate how freely registered land may be used as a source of commercial credit under the Torrens System, and prove that no business man need have apprehension about crippling his business by buying a home wherever the Torrens System may prevail.

The Business of Business Men.

You may wish to know, however, whether the active prosecution of your business is affected in any other way by the land laws. Do you have to credit your customers? If so, you will certainly be benefitted by any law that will enable them to give you good security. Merchants suffer terribly, especially in the country, from the credit system. They rarely require security because their patrons are unable to furnish it readily. No man gives a deed of trust now unless he is hard pushed, and it is usually a sign of financial weakness. If a man pledges his stocks and bonds, no shoulders are shrugged, no eyebrows are lifted. There are no evil squints and no predictions of impending failure. It is regarded as an ordinary business transaction, and excites no special comment. But let a man give a deed of trust, and the dome of heaven becomes a whispering gallery. Disastrous rumors fill the air, and often shake every foundation of credit until

"A Kalamazoo Direct to You"



ROYAL STEEL RANGE
For All Kinds of fuel.

Examine our complete line of stoves and ranges for all kinds of fuel. Note the high quality; compare our prices with others, and then decide to buy from actual manufacturers and save all middlemen's profits. Catalog shows 27 styles and sizes for all kinds of fuel. Write now. Sold on 30 Days Approval Test.

Kalamazoo Stove Co., Manufacturers, Kalamazoo, Mich.

All Kalamazoo Cook Stoves and Ranges are fitted with patent oven thermometer which makes baking and roasting easy. All stoves blacked, polished and ready for immediate use when you receive them.



OAK STOVE HEATER,
For All Kinds of Fuel

WE PAY THE FREIGHT.

We want to prove to you that you cannot buy a better stove or range than the Kalamazoo, at any price.

We want to show you *how* and *why* you save from 20% to 40% in buying direct from our factory at factory prices.

If you think \$5, or \$10, or \$40, worth saving

Send Postal for Catalogue No. 400



Don't Buy Ornamental Wire Fence until you have looked over my 60-page catalog

It Tells You How to Save Money on Your Fence



HARRY WARD
President Ward Fence Co.

If my fence doesn't suit you even after you put it up you can send it back to me and it hasn't cost you a penny to see how it looks on your property. I return your remittance immediately when you send the fence back. I will pay the freight both ways, too.

Here is your protection—my Guarantee:

Harry Ward Pres.
The Ward Fence Co.

I make my fence really ornamental, but I make it stronger and more durable than any other and

neater looking at the same time. I find that Steel makes a better, neater Picket than Iron, so I put Steel Pickets into my fence. That is but one of the features of improvement over the ordinary fence the dealer will offer you.

I make and sell 5,000 feet—or almost one mile—of Ornamental Wire and Steel Picket Fence every day, and every fence sent out is beautiful, compact, strong and serviceable. People keep my fence; it lasts for years. 5,000 feet sold every day is a good business, and a good business couldn't be done with anything but a good fence.

Send for my Catalogue today. It describes and illustrates forty-four styles of Ornamental Wire and Steel Picket Fence, Farm and Lawn Gates. If you desire Ornamental Wire Fabric Fence ask for my Catalogue "B." If you are interested in Heavy Malleable and Steel Picket Fence ask for Catalogue "C." Or if you are interested in Farm or Poultry Fence ask for Catalogue No. 51.

You see, I sell my fence direct to you at manufacturer's prices, and am therefore directly responsible; and remember, you pay nothing for any fence if it isn't entirely to your satisfaction.

Write to me today, just a postal, asking for either Catalogue. Address me personally—

HARRY WARD, President WARD FENCE CO.
Department B **Marion, Ind.**

An extra heavy fence. Every wire—both strand and stay—No. 9 gauge. Thickly galvanized. Best graded steel. We mail free sample for inspection and test. A more substantial, stock resisting, time-defying fence was never stapled to posts.

WE PAY FREIGHT ON 40 RODS
Write for book showing 110 styles.
Brown Fence and Wire Co.
Cleveland, Ohio

BROWN FENCE
SAMPLE FREE
16c to 35c
Per Rod—Delivered

DON'T BUY GASOLINE ENGINES

UNTIL YOU INVESTIGATE
"THE MASTER WORKMAN,"
a two-cylinder gasoline, kerosene or
Lamp to Run. Quickly, easily started. Vibration practically overcome. Cheaply mounted on any wagon. It is a combination portable, stationary or traction engine. SEND FOR CATALOGUE. THE TEMPLE PUMP CO., Mrs. Meagher and 15th Sts., Chicago. THIS IS OUR FIFTY-THIRD YEAR.

Virginia State Fair

Richmond, Virginia,

October 9-13, 1906.

At The New Fair Grounds.

THE VIRGINIA STATE FAIR ASSOCIATION takes pleasure in announcing that the plans and arrangements for the Fair are now so far matured that it can be confidently stated that the Fair will be the greatest one ever held in the South.

PLANS of the required buildings have been prepared and approved and bids for their erection secured and this work is now in hand and will be pushed on with all speed possible. The buildings comprise Halls for the exhibition of Machinery and Farm products and ample stable, stall and pen accommodation for all classes of Stock. Also a fine Grand Stand from which to see the Races and parades of Stock.

A FIRST CLASS RACE TRACK is now being laid out and made, and a commodious grand stand is being erected.

THE MOST LIBERAL PREMIUMS ever offered at a Southern Fair will be hung up for competition, and both Free-for-all and Special classes will be provided for.

THE PREMIUM LIST is now ready for distribution. Be sure and write for a copy to-day.

WHILST THE MAIN FEATURES of the Fair will be strictly Agricultural and in the interest of Live Stock breeders, yet there will be ample provision made for amusements of a high class character.

THE FAIR GROUND is directly on the Railroad and Street Car tracks and ample facilities will be afforded for the quick handling of great crowds of people whilst Stock and Exhibits of all kinds will be delivered directly into the grounds. The Railroads and Street Car Company have made arrangements for most liberal rates for Live Stock and the public, particulars of which, will be given in future announcements and in the Premium List.

Send for a Premium List

THE VIRGINIA STATE FAIR ASSOCIATION,

Henry Smith, Gen. Mgr.

C. W. Smith, Asst. Gen. Mgr.

Richmond, Va.

Offices: 707 East Main Street,



O. L. Chase

I Am the Paint Man

EIGHT-YEAR GUARANTEE—TWO GALLONS FREE TO TRY—6 MONTHS' TIME TO PAY

MY PAINT is a new paint—made in a new way—sold on a new plan. It is unique. My paint is unlike any other paint in the world. It is made especially for you after your order is received, and I pack your order in hermetically sealed cans.

I ship my thick pigment, which is double strength, freshly ground, in separate cans, and in such a way that I ship the pure, old process Linseed Oil—the kind you used to buy years ago. Any child can stir them together. This is the only possible way that you can get fresh paint for your work, and fresh paint is the only good paint.

I sell my **O. L. Chase Made-to-Order Paint** direct from my factory to you at a very low factory price.

You pay no paint dealer's or middle man's profit. It is the most economical good paint made, for first cost, and because of the extraordinarily long wear, it reduces the average of your painting bills at least fifty per cent.

I pay all freight on six gallons or over. I allow you to try the whole

order to paint your buildings. After you use it, stand off and look at it. If it is not entirely satisfactory ask as represented in every way, the paint will be yours free.

No other paint manufacturer ever made such a liberal offer, and I make it because I manufacture the best paint ever put on the market.

I go even further. I will sell my paint on six months' time to responsible people I desire. This gives you ample time to test its value.

Back of my agreement for quality, I also put a guarantee for eight years, the longest ever put upon a paint, and back of that is my \$50,000 bond.

Before buying paint, be sure and send for my paint book. It will not cost you a cent. It is the finest paint book ever issued. It tells the whole of my paint story in the most convincing and common-sense argument, and with it comes big samples of all colors to choose from. Drop me a line at once. I will be glad to forward you the booklet, with a copy of my written guarantee, etc.

Yours truly, **O. L. Chase, The Paint Man,**

721 Olive Street, St. Louis, Mo.

ruin stares him in the face. Nothing like this would happen if real estate were freed from its shackles and released from the dungeon dug by feudal law. When men deal freely with their lands as they do under the Torrens System, such transactions cause no surprise and afford no ground for reports of bankruptcy. Therefore, merchants will not hesitate to ask for security, and their customers will not be afraid to give it.

No False Credit.

You frequently trust a customer because he is the reputed owner of real estate. His title may be worthless, and neither he nor you may know it. Or, he may have parted with his title and you may not know it; or, there may be judgments against it, and you may not know it. To find out these things, you would have to employ a lawyer, and even after the lawyer had examined the records, he could not tell you certainly, because many things that affect title are not required to be recorded under our present laws. All this will be different under the Torrens System. It will be simply impossible for any man to deceive you, and you can for yourself tell all about his title by examining his certificate—a thing that can be done in a few minutes. For nothing can affect the title except what is registered upon the Certificate, and you need never give credit unless credit is deserved.

EUGENE C. MASSIE.

Bedford County, Va., April 12, 1906.
I cannot afford to do without the Southern Planter, nor can any other farmer.

F. O. DeLONG.

Bedford County, Va., June 10, 1906.
I think the Southern Planter is the best paper I ever subscribed for. In each number you have sent me I found some information that I thought was well worth the subscription price. I anxiously await each number as there is always something helpful in it.

G. H. GRANT.

Always mention The Southern Planter when writing to advertisers.

"Paints that stay Painted."

DO YOU USE PAINT?

Most of the world does. There are good and bad in PAINTS. But unless you are thoroughly acquainted with the PAINT industry, it is hard for you to tell the good from the bad. JNO. W. ATKINSON & CO., sell reliable PAINTS and you can depend upon what you buy from them. Their prices are as low as possible, consistent with good quality. Is it not best to buy where you know your purchase will be satisfactory? Write for PAINT prices and Color Cards to

JOHN W. ATKINSON & CO.,
Richmond, Va.

Richmond, Fredericksburg & Potomac R. R. and Washington Southern Railway

The Double-Track Link

Connecting the

Atlantic Coast Line Railroad
Baltimore & Ohio Railroad
Chesapeake & Ohio Railway
Pennsylvania Railroad
Seaboard Air Line Railway
Southern Railway

Between All Points
via Richmond,
Virginia, and
Washington, D. C.



W. P. Taylor, Traffic Manager

The Gateway between the

North and the South

Fast Mail
Passenger
Express and
Freight Route



SPANGLER LOW DOWN GRAIN DRILL

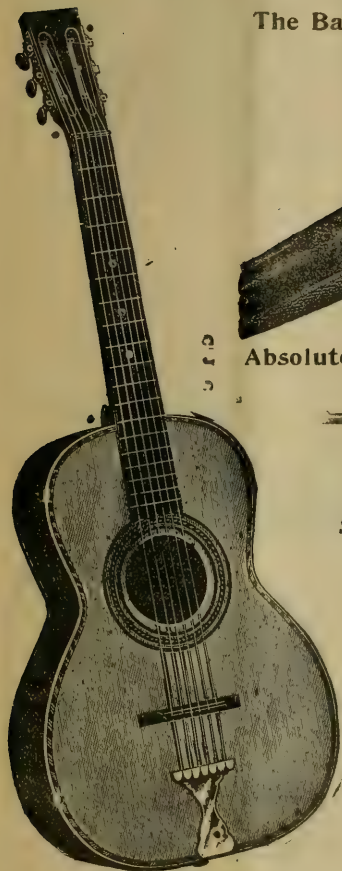
is superior to other drills. Its light in weight and draft; has high wheels, broad tires, low steel frame; sows grain or fertilizer evenly, either up or down hill. Being low in frame, it is easy to fill and does not obstruct the driver's view. Has no cogs nor side gear to break. Farmers can make no mistake when they buy a Spangler drill, because each drill is guaranteed to give satisfaction in every respect. Write for free catalogue, which will tell you more about this great drill.

SPANGLER MFG. CO., 204 Queen Street, York, Pa.

Send For Our Complete Catalogue, IT'S FREE.

We Sell **EVERYTHING** and Can
Save You Much Money on the Goods You Buy.

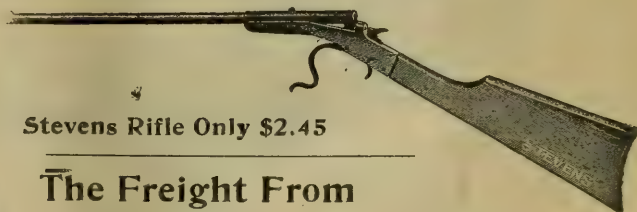
The Bargains Shown Below Will Give You Some Idea of
Our Money Saving Prices



This Guitar \$2 25.



Absolutely Guaranteed Shot Gun \$7.75. We Sell Every-
thing Used by the Hunter.



Stevens Rifle Only \$2.45

The Freight From
RICHMOND
is Not Half as
Much as From
CHICAGO.



THIS ELEGANT CHAIR \$1.71.

Give Us a Trial.

SPOTLESS CO., Inc., Box 364Z, on Shockoe Slip, RICHMOND, VA.

The Jamestown Exposition will be one vast colonial city in architecture, environment, art and industrial activity. The exposition visitor will live during his stay in an atmosphere of colonial romance and history. To paraphrase Napoleon's famous remark at the Pyramids, "Three centuries will look down upon you."

Lee's Parade, the large space set aside on the grounds of the Jamestown Exposition for the drill work of the military bodies from all nations, is named in honor of General Robert E. Lee, the great Confederate chieftain, and one of Virginia's favorite sons. These military parades and drills will surpass any that have been held.

The evolution of war craft and other shipping will be portrayed at the Jamestown Exposition next year, not by pictures and drawings, but by real wood and metal models of correct size. The three ships which brought the first settlers across from England to Jamestown will be reproduced faithfully, riding at anchor off the Exposition grounds in Hampton Roads.

Norfolk and the neighboring towns and cities in Tidewater Virginia are making extensive preparations to handle the vast throngs of visitors who will attend the Jamestown Tercentennial Exposition in 1907. In addition to the scores of hotels and the hundreds of boarding houses already in these cities and summer resorts by the sea, many new hotels of a temporary character, though well built, are being constructed near the grounds.

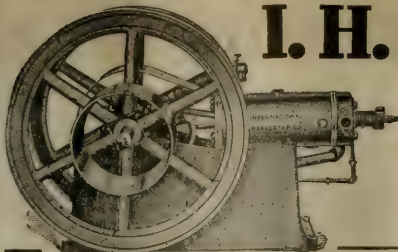
WASHINGTON NOTES.

Work of Experiment Stations.

The Department of Agriculture has recently made public a number of experiments which should be of value to the farmer. These studies are made by experimenters who watch carefully for every change in condition and result with a view to making public such features as might prove beneficial.

How to Obtain Clean Milk Cans and Bottles.

One investigation made was that of methods employed in cleansing bottles and cans used for milk. Several methods employed in cleansing botling out cans or bottles with cold water, which, while almost necessary to remove the remaining milk, is considered as leaving the can almost as dirty as before; (2) washing bottles and cans with a hand brush and a solution of one of the various washing powders, the method most often used by the small dealer, which was frequently found to be done carelessly and without hot water, or a washing powder solution strong enough to be satisfactory; (3) washing with machines with a revolving brush and so-



I. H. C. Farm Powers

That
a Boy
Can Run

That means something. A man's power in the biggest and widest sense of the word but so simple that his boy can run it.

Don't get a complicated engine even if you are a thorough mechanic.

I. H. C. engines are farm engines, intended to be run by farmers, doing farmers' work. They are made as simple as it is possible to make them and have the proper efficiency.

They are not only simple—they are scientifically and conscientiously built. Designed by men who know what a gasoline engine should be. Built so that you can stand the most rigid test that can be put upon them.

An expensive factory requirement is that every engine must develop 20 to 40% more than its rating of power. If it fails in this test it is sent back to the factory as a deficient engine.

INTERNATIONAL HARVESTER COMPANY OF AMERICA, CHICAGO, U.S.A.
(Incorporated.)

Equipped for use with
**GAS, GASOLINE
or ALCOHOL.**

For certainty of response, quickness of action, smooth running and low cost of running for power made, they have no real competitors.

Designed and built and tested so that no man can possibly make a mistake when he buys one.

We cannot afford to sell any other kind.

Vertical, Horizontal, Portable, Stationary—many convenient sizes. Can be used for any work about the farm, from turning the grindstone to operating a threshing machine.

Call on the International Agent or write for catalogue.



It Pays
to Know
All About
the

SUCCESS MANURE SPREADER

There are not so many new features, but lots of valuable old ones.

You know the Success is the spreader that literally grew. Not the kind that some "genius" made in a day. Nearly 30 years developing, its principles and its making are right because they have been proven to be right.

That can't be said of all spreaders. Take strength, for an example.

We are not guessing at necessities when we put a larger axle in the Success than is found in any other spreader. We know from experience. So with the frame. We make it of second growth white ash.

No every build appreciates the wracking and jolting that a spreader frame has to stand. We do. So we make it of just as tough material and just as substantial as is possible. **ASK** for it all the way through.

We've demonstrated that the beater drive chain absolutely must be direct working to avoid breakage. Note the steel pin chain.

The harpoon teeth on end of beater are a valuable feature. They cut the straw and keep beater ends clean.

Whatever feature you find on the Success, be sure that it is a necessary feature. Here are a few:

- Solid steel brace from axle ends to beater ends.
- Power feed of bottom—locked going up or down a hill.
- Adjustable pulverizer—make fine or coarse as wanted.
- Superior change of feed device, etc., etc.

These are not mere talking points. The Success is a spreader of essentials. You can appreciate every one of them if you've ever had experience with spreaders. The thing to do is to know them all or to know as much about them all as possible before you buy.

Our spreader book tells the story truthfully. It's yours for the asking, free.

KEMP & BURPEE MFG. CO., Box 205, SYRACUSE, N. Y.

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These cutters and ensilage cutters are the most perfect machines in the world for cutting and ensiling feed. They are used by the best farmers in the world. They are used by the best farmers in the world. They are used by the best farmers in the world.

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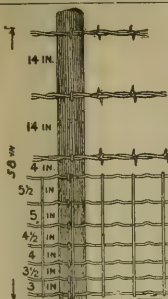
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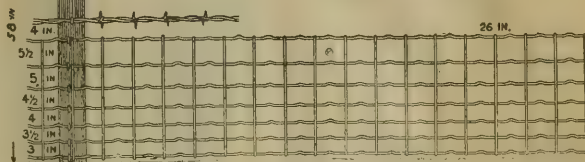
Smith 20th. Century Stump Pullers are the strongest, simplest and best Stump Puller made.



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STRONGEST IN THE WORLD.
WELDED BY ELECTRICITY.

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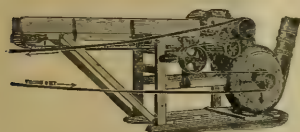
Feed Mills and Horse Power Combined. For grinding Ear Corn or small grain. A first-class power for running Feed Cutter, Wood Saw and Corn Sheller.

Dain Steel Corn Cutter.



Two men cut one-third more corn—and leave the stubble at an even height—with less labor; than four men the old way. We have sold thousands and invite correspondence with those wanting the best Corn Cutter made

not excepting those costing from \$100.00 to \$150.00



Smalley, Hocking Valley and Tornado Feed Cutters, all sizes, with carrier and blower. Write for prices and catalog.



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THE CHATTANOOGA HANCOCK Single Disc Plow.

For two or three horses.
Draft lighter than any other Disc Plow.
Turns corners either right or left.
Low steel frame.
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Principle Right.

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What it Does.

It handles more cubic inches of soil with less draft than any plow on earth.
It turns under stalks, trash and weeds completely.
It breaks up "hard pan" and pulverises the soil.
It leaves the ground at bottom of furrow porous and natural.
It prepares the soil to withstand either wet or dry season.
It insures better crops than any other method of plowing.

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lution of washing powder and rinsing in water, the results of which method were considered unsatisfactory from a bacteriological standpoint; (4) throwing a jet of live steam into inverted cans, which method frequently serves to fix the dirt already in the can, and does not destroy the bacteria; (5) washing by means of large machines constructed to throw powerful streams of hot washing powder solutions into the bottles, and followed by boiling water, which method, the author says, was investigated thoroughly and found most satisfactory; and (6) washing with soap and water and sterilizing in a steam box or autoclave, which is a fairly good method, but applicable only when a comparatively small number of bottles are to be cleansed daily.

The fifth method mentioned is considered capable of cleansing 95 per cent. of the bottles perfectly. More than 500 bottles have been watched going through this kind of machine without finding one that had not been thoroughly cleansed. This is probably the only rapid practical method of sterilizing and cleansing milk vessels.

Several washing powders were compared as regards their ability to destroy bacteria and cleanse milk vessels. The germ-destroying powder was found to be slight. Sodium carbonate and powders containing a large proportion of this material were found to cleanse most thoroughly and most rapidly. Powders composed of alkali and a fat cleansed well, but less rapidly.

Small Scale Irrigation.

After watching for years the successful operation of irrigation plans on a large scale in the West, the eastern farmers are taking up the practice on a small scale to help out the rainfall that in an ordinary season is supposed to be sufficient to raise crops. A report to the Department of Agriculture recently shows something of what is being done in this line, and the report is enough to encourage the farmers who have not taken up the practice to put in plants.

The irrigation works in the east cover parts of Maryland and Pennsylvania, New York and some of the New England States. The plants are mostly in connection with truck gardens, for it is there that the returns per acre are the highest and the farmer can afford to spend more money for water than he can on less paying crops. Some of the water is from the city mains, and the cost is, of course, high. Others of the eastern irrigators have to pump from wells and use expensive lines of overhead and underground pipes. But the result as a rule is that the irrigated farm pays about twice as much as that without irrigation.

There are some wet seasons in the east when there is no need of irrigation at all. But there are other

P. 1.



Fruit Trees 7½c
(Apple and Peach) Other kinds low in proportion.

Why pay two to five prices for all kinds of nursery stock to cover agents' profits and bad debts, when we, by employing no agents and making no bad debts—selling for cash direct to the people at lowest wholesale rates—will save you so much. Twenty-two years' experience, 1,000,000 high-class fruit trees, 50,000,000 strawberry plants. Special bargains in apple trees. Safe and cheap delivery anywhere in U. S. Valuable book on fruit growing free to buyers.

Strawberry Plants
\$1.25 per 1000 in quantities
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CLOVER SEED
TURNIP SEED
SEED WHEAT
SEED RYE
SEED OATS
FERTILIZERS
POULTRY SUPPLIES
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HORSE FEEDS
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S. T. BEVERIDGE & CO.,
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SEE OTHER AD PAGE 772

SEED OATS FOR SALE.

800 Bushels VIRGINIA GREY WINTER OR TURF.

This is without doubt the best WINTER oat in America. These oats were sown in the fall especially for seed and are guaranteed absolutely true to name, are of a very superior quality and extra heavy. Grown in Albemarle County, in the Piedmont section of Virginia, where the best seed oats obtainable are produced. Samples sent on application. My crop this season is so large, that I have decided to reduce the price to 70 cents per bushel of 32 lbs. sacked, F. O. B. Address,

WOODSIDE STOCK FARM, R. S. FARISH, Prop., Charlottesville, Va.

times when without artificial watering the crops would be a total failure, and when with the aid of irrigation, crops mature as much as two weeks earlier, and, of course, bring much higher prices. Irrigation has been tried also on pasture lands, and the farmers report that twice as much hay can be cut in a season off irrigated land as on that not irrigated, and that if the land is used for pasturage that if the land is used for pasture twice as much head of stock can be grazed to the acre as on dry pasture, and that the feed is better.

Berries and small fruits and celery and beets seem to pay particularly well for the added water given them. There are numerous instances cited in the report where the irrigation of a strawberry farm has made all the differences between success and failure.

The report goes into many technical details as to the cost of pumping plants and the results obtained under various conditions in various localities.

Incubator Suggestions.

From observations made with a number of setting hens it was found that in every instance the eggs were moved every day and did not remain in the same part of the nest for more than three days at any time during the setting period. The thorough manner in which the hen turns the eggs may well furnish us a clue to the most natural and proper treatment of the eggs when under the artificial condition of the incubator.

A New Potato.

A report received by the Department of Commerce and Labor from the British Vice-Consul at Rouen, France, states that the cultivation in France of a new potato brought from Uruguay, has been observed for some time with great interest. A variety of this potato, called the "Solanum commercii violet," is said to possess excellence of taste as well as a nutritive value, and is equal to the best potato known in France. This variety is distinguished by its resistance to frost, as also to disease. Its one great advantage is that it prospers most in



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Seeds, Fertilizers and Wool.

SEEDS. We sell every kind of seed for field and garden of best quality, and as low as same qualities can be bought in any market.

FERTILIZERS. We sell Fertilizers for every crop, under our own brands. All who have used our High Grade Tobacco Cane Corn Grower, Wheat and Grass Fertilizers Pure Raw Bone, and High Grade Acid Phosphate, analyzing from 14 to 16 per cent. pronounce them the best they have used.

WOOL. We buy all the year round, and **PAY THE HIGHEST MARKET PRICE.** Parties wishing to purchase will find it to their interest to see us before buying.

—WE SUPPLY—

ALFALFA BACTERIA

in the shape of

INFECTED SOIL

from an old two acre Alfalfa plot which has given us 3 or 4 good cuttings yearly for the past seven years, and is still doing well. Price, \$1.00 per bag (in 4 bag lots) of about 100 lbs.; more than 4 bags, 75 cents each; f. o. b. Midlothian; soil sifted and ready for use either by hand or drill.

J. B. WATKINS & BRO., Midlothian, Va.

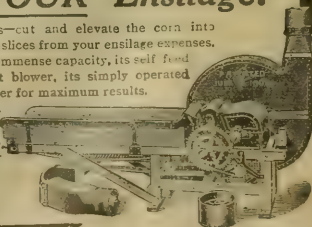
How About YOUR Ensilage?

"OHIO" Ensilage Cutters cut two ways—cut and elevate the corn into silo at an amazing speed; and cut off huge slices from your ensilage expenses.

How does it "cut" expenses? By its immense capacity, its self feed mechanism, its power-saving direct draft blower, its simply operated silage distributor, its minimum use of power for maximum results.

Silage as a milk and beef producer is far superior to grain. Our book "Modern Silage Methods" (10c) tells all about it. Our Ensilage Cutter Catalog will easily convince the man who wants the best. Send for it. Manufactured only by

**The Silver Manufacturing Co.,
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a damp or swampy land. Clayed, calcareous, or silicious soil seems equally adapted for its culture, provided it is damp. The price of this potato, which has now been placed on the market in a limited quantity for planting purposes, is about 48 cents per pound.

GUY E. MITCHELL.

REPORTS.

United States Department of Agriculture, Bureau of Animal Industry, Washington, D. C., Order No. 137. Regulations Governing the Meat Inspection of the United States Department of Agriculture:

Bureau of Animal Industry. Circular 97. How to Get Rid of Cattle Ticks.

Bureau of Entomology. Bulletin 53, Part II. Some Insects Injurious to Forests. The Western Pine-Destroying Bark Beetle.

Office of Experiment Stations. Experiment Station Record, Vols. XVI and XVIII, Nos. 10 and 11.

Office of Experiment Station. Bulletin 168. The State Engineer and His Relation to Irrigation.

Bureau of Soils. Field Operations of the Bureau, 1904. Sixth Report with maps.

Bureau of Statistics. Bulletin 41, Changes in Farm Values, 1900-05. Farmers' Bulletin. No. 254. Cucumbers.

Colorado Experiment Station, Fort Collins, Col. Bulletin 116. Cottony Maple Scale.

Kansas Experiment Station. Manhattan, Kan. Bulletin 136. Collection of Press Bulletins issued by the Station in the last two years.

Maryland Experiment Station, College Park, Md. Bulletin 109. Mosquitoes.

Michigan Experiment Station, Agricultural College, Mich. Bulletin 238. First Annual Report of Grade Dairy Herd.

Missouri Experiment Station, Columbia, Mo. Bulletin 72. Alfalfa Growing in Missouri.

Missouri College of Agriculture, Columbia, Mo. Announcement, 1906-1907.

Nebraska Experiment Station, Lincoln, Neb. Nineteenth Annual Report. Bulletin 92. Cover Crops for Young Orchards.

Press Bulletin 22. Malarial Fever in Horses.

Nebraska University, Lincoln, Neb. An Address Concerning Some Problems Confronting Nebraska Farmers.

Purdue Experiment Station, Lafayette, Ind. Bulletin 113. Characteristics of some of the Contagious and Infectious Stock Diseases.

Bulletin 114. Winter Wheat.

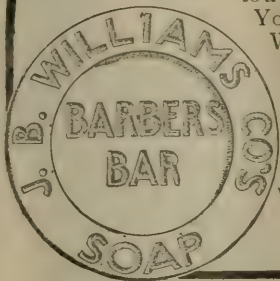
Rhode Island Experiment Station, Kingston, R. I. Bulletin 112. Commercial Feeding Stuffs.

Williams' Shaving Soap

Williams' Shaving Soap "will not smart or dry on the face."

You know how common soap dries up into a scum—how it burns and smart.

You can avoid it all by using Williams' Shaving Soap.



Send 2c. stamp for trial sample (enough for 50 shaves).

Williams' Barbers' Bar, Yankee, Mug, Quick & Easy Shaving Soaps, and Williams' Shaving Sticks.—Sold everywhere. Address,

THE J. B. WILLIAMS COMPANY,
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First Class Nursery Stock
of all kinds.

WHOLESALE
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We make a specialty of handling dealers' orders.

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Apples,	Nectarines,	Pecans,	Ornamental and
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Peach,	Quinces,	Walnuts.	Evergreens.
Plum,	Almonds,	Small Fruits.	Roses, Etc
Apricots,			

CALIFORNIA PRIVET, for Hedging.

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..ELMWOOD NURSERIES..

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APPLES, PEACHES, PEARS, CHERRIES, PLUMS, APRICOTS; NECTARINES, GRAPEVINES in large assortments, GOOSEBERRIES, CURRANTS, STRAWBERRIES, HORSE-RADISH, ASPARAGUS, DEWBERRIES, and an extra lot Raspberries. Splendid assortment ORNAMENTAL and SHADE TREES, ORNAMENTAL SHRUBS and HEDGE PLANTS.

EGGS FOR B. P. ROCK and BROWN LEGHORN FOWLS at \$1.00 per 13. Also, a few pullets and cockerels of these breeds at \$1.00 each for immediate delivery. Write for catalogue to

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OLD RELIABLE SEED FIRM,
ESTABLISHED IN 1880.
WE MAKE A SPECIALTY OF HIGH GRADE
FIELD AND GRASS SEED.**

Keep constantly on hand a large and carefully selected stock. We sell the purest and best seed grain and grass seed grown in this country. Guarantee quality as good and prices as reasonable as any other house in the trade. Write for prices.

We are also large buyers of home grown seed grain and grass seeds. Send samples and we will make you offer delivered at your railroad station.

N. R. SAVAGE & SON, RICHMOND, VIRGINIA.

Virginia Weather Service, Richmond, Va. Report for July, 1906.
Wyoming Experiment Station, Laramie, Wyo. Bulletin 10. Wyoming Forage Plants and Their Chemical Composition.
Agricultural Department for the West Indies, Barbadoes, W. I. West Indian Bulletin, Vol. VII, No. 2.

PAMPHLETS, &C.

Year-Book of the American Devon Cattle Club for 1906. Price 25 cents.
L. P. Sisson, Secretary, Newark, N. J.
American Yorkshire Club Annual, Secretary, Harry G. Krumm, White Bear Lake, Minn.

CATALOGUES.

Catalogue of Large English and American Berkshire Hogs and Supplement, August, 1906. W. H. Coffman, Bluefield, W. Va.

State Femal Normal School, Farmville, Va.. Announcement 1906-1907. Judge A. D. Watkins, Farmville, Secretary and Treasurer.

FAIR PREMIUM LISTS.

Virginia State Fair, Richmond, Va., October 9-13, 1906. President, Hon. Henry C. Stuart; Manager, Henry Smith; Assistant Manager, C. W. Smith., Office, 707 E. Main street, Richmond, Va.

Great Roanoke Fair, Roanoke, Va., September 25 to 28, 1906. James P. Wood, President; Louis A. Scholz, Secretary, Roanoke, Va..

Southwest Virginia Agricultural and Live Stock Association, Radford, Va., September 11 to 14, 1906. Cyrus T. Fox, Manager, Radford, Va.

Tazewell Fair Association, Tazewell, Va., September 18 to 20, 1906. H. S. Bowen, President; Dr. R. P. Copenhaver, Secretary and Treasurer, Tazewell, Va.

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**STANDARD FOR
14 YEARS.**

The oldest prepared roofing on the market, and the first Ruberoid Roofs laid, many years ago, are still giving satisfactory service under the severest climatic and atmospheric conditions.

Contains no tar or paper; will not melt, or tear. Acid fumes will not injure it.

Outlasts metal or shingles. Any handy man can apply it.

There is only one Ruberoid Roofing, and we sell it. You can verify its genuineness by the name on the label and on the under side of every length of Ruberoid Roofing. Send for samples and booklet

A large stock of Corrugated and V. Crimp Roofing always on hand.

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ROCKBRIDGE PEERLESS PREPARED AGRICULTURAL LIME

Process Patented August 13, 1901.
Packed in 50 lb. Sacks—Easy to Handle.

Can be Drilled With the Seed.

More Efficacious Than Air-Slaked Lime.

Address **ROCKBRIDGE LIME AND STONE CO., Lexington, Va.**

THE AMERICAN "FONTAINE" SHOCK BINDER.

A Labor Saving Farming Implement. It has often been said that the greatest inventions are the simplest. Once invented and its use demonstrated, we are prone to say "why did I not think of that myself?" The Lucifer Match, the Needle, the Umbrella, all simple in their construction, have yielded their inventor great returns and benefitted the entire human race.

Not less true is this of the American "Fontaine" Shock Binder; of the very simplest possible construction, yet it accomplishes wonders in the saving of time and labor, which as every farmer appreciates means money to him. In these days where everything must be saved and the stalk, fodder and corn is utilized for feed purposes, the cutting, shocking and tying of corn is becoming more general each year. Heretofore it required two men and a great deal of labor and twine to compress and tie a shock of corn. It took rope and wire. With the American "Fontaine" Shock Binder one man can do the work of three and can perform the service faster than ten or fifteen men can cut the corn. Not only is there saving in labor and saving in time, but the shocks are protected from the elements and the fodder is 25 per cent better than when put up insecurely.

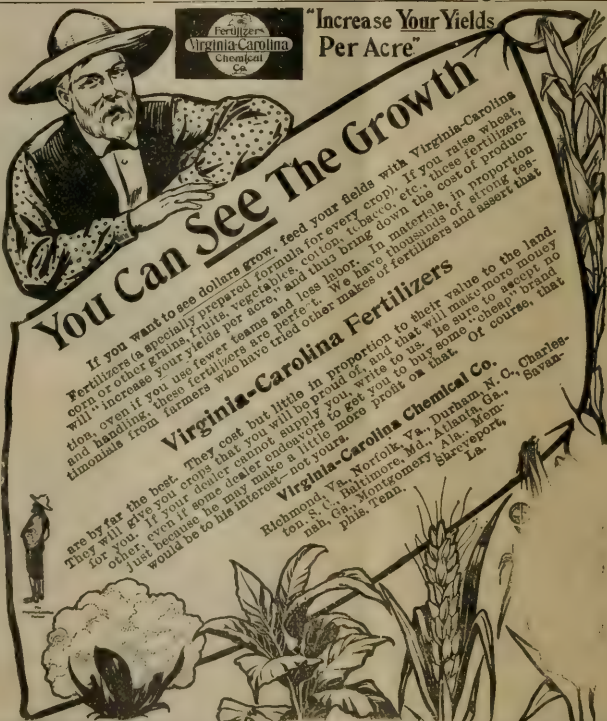
In this issue we are advertising a shock binder, which seems to fulfill all the requirements of a labor saving and twine saving device. Every farmer who cuts and shocks his corn should read this advertisement and write to the manufacturer for circulars descriptive of the Shock Binder, and mention this paper.

FRUIT FERTILIZER.

We call the attention of Fruit Growers to a new fertilizer on the market advertised by A. S. LEE & SONS COMPANY.

The Germans claim that annual manuring gives annual crops; if so it is worth a trial.

A Neat Binder for your back numbers can be had for 30 cents. Address our Business Department.



"Increase Your Yields Per Acre"

You Can See The Growth

If you want to see dollars grow, feed your fields with Virginia-Carolina Fertilizers (a specially prepared formula for every crop). If you raise wheat, corn or other grains, fruits, vegetables, cotton, tobacco, etc., these fertilizers will increase your yields per acre, and thus bring down the cost of production, even if you use fewer teams and less labor. In materials in proportion and handling, these fertilizers are very cheap. We have thousands of strong testimonials from farmers who have tried other makes of fertilizers and assert that

Virginia-Carolina Fertilizers

are by far the best. They cost but little in proportion to their value to the land. They will give you a crop that you will be proud of, and that will make more money for you. If you don't care to get you to use the sure to accept no other crop, if some dealer would make a little more profit on that, of course, that just because he may not be his interest, not yours.

Virginia-Carolina Chemical Co.
Richmond, Va., Norfolk, Va., Durham, N. C., Charleston, S. C., Baltimore, Md., Atlanta, Ga., Memphis, Tenn., Montgomery, Ala., Savannah, La.

Pulls Stumps or Standing Trees.

Clears a two-acre circle with one sitting—pulls anything the wire rope will reach; stumps, trees, grubs, rocks, hedges, etc. A man and a boy with one or two horses can run the

COMBINATION STUMP PULLER,

Stump Anchored or Self Anchoring.

A minute and a half is all it takes for the ordinary stump. No heavy chains or rods. Note the strong wire rope with silent coupler—grabs the rope at any point. Does not chafe rope; far ahead of so-called "take-ups." Smaller rope we furnish chains 40,000 lbs. strain. It generates immense power and it's made to stand the strain. We also make the Iron Giant Grub and Bump machine, the L. K. L. Grubber and Hawkeye Grub and Stump Machine. Write for free illustrated catalogue.

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Established 1884.



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Bickford & Huffman Farmers Favorite GRAIN DRILL.

The drill that has for sixty years earned its name by real merit and leads all others in popularity wherever known.

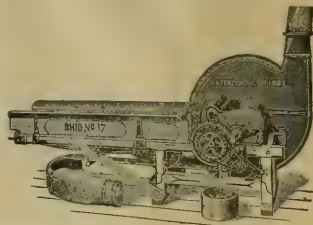
Steel Frame, Spiral Steel Grain Tubes, Roller Bearings, Light Draft, Disc or Hoe used on same frame.



Drills wheat, oats, rye, peas, beans and all kinds of grass seed. Plants corn and beans in hills any desired distance and two or more rows at a time. The Wizard fertilizer force feed drills accurately any quantity of fertilizer from 55 pounds to 960 pounds to the acre.

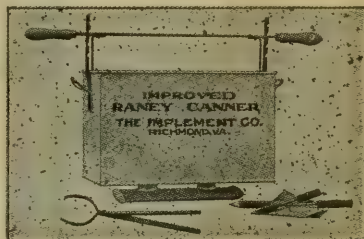
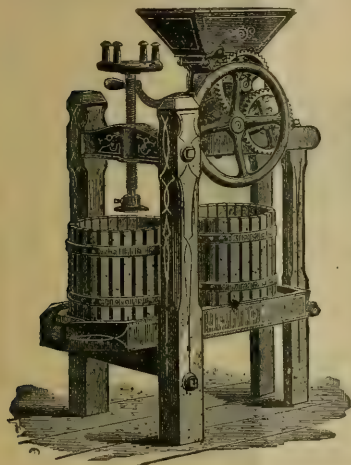
OHIO FEED AND ENSILAGE CUTTERS AND BLOWERS.

Capacity, 8 to 30 tons ensilage per hour, (according to size of machine), cut and elevated into highest Silo with only 6 to 16 horse power. Marvelous, but due to simple scientific construction. Perfect self feed mechanism and patented Slage distributor eliminate practically all labor. Trying to find a more popular machine is worse than trying to find the North Pole. Special catalogue describing all sizes, hand and power cutters sent on request.



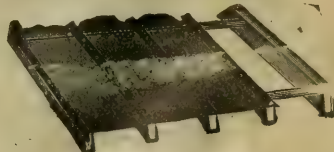
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with the most improved and satisfactory grinding apparatus and throat adjustable to all sizes of fruit.



A RANEY CANNING outfit will save much fruit and vegetables, costs little, keeps money on the farm and brings more on. We furnish them to work on cook stove or furnace for either home or market canning. Their small cost will be saved in one day. Send for circulars and prices. With each outfit we furnish free a book of instructions telling how to can all kinds of fruit and vegetables. Prices from \$1.00 to \$22.50.

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The cheapest and best roofing made. Especially adapted for covering houses, factories, barns and farm buildings. No extra tools required and can be put on by any farm hand. Furnished in lengths of 5, 6, 7, 8, 9 and 10 feet, and each sheet covers two feet in width.

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Wheel and Disc Cultivators, Disc and Hoe grain Drills, Corn and Cotton Planters, Farm Wagons, Engines, Buggies, Surries, Harness, Saddles, V. Crimp and other Roofing, Barb Wire Fencing, etc.

WILL BE MAILED FREE

Farmers will get the best Farm Implements on the market and save money by sending us their orders.

The Implement Co.,

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MAGAZINES.

Aside from its special interest in connection with the campaign against child labor, Jack London's vivid study, "The Apostate," amply deserves the place of honor that it occupies in the September number of the Woman's Home Companion. Other good summer reading in this magazine includes another of William MacLeod Raine's dashing cowboy stories, "Pete Sanderson Intervenes," and "The Price of Victory," a thrilling little sketch by Robert Aitken. In connection with its work in arousing sentiment against child labor, the Woman's Home Companion has taken a step unusual in a magazine of its character by enlisting the services of the cartoonist, and two full-page drawings by Homer Davenport entitled "An Industrial Success," serve to bring home to everyone the truth as to a national evil. Among the household topics treated are, "Some Appetizing Pickles and Condiments," "Rug-Making as a Home Industry," "Free! Alcohol! What It Means to the Household," "Practical Fashions," and "Bags of Beauty and Usefulness."

ALWAYS IN TROUBLE.

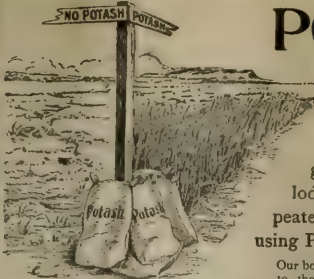
Editor Southern Planter:

"Borrowing" or anticipating trouble, is, without doubt, the principal cause of indigestion, and yet many of us are built that way. Last April, 1906, we began work on the little 50 acre farm or home, which we had selected, in Princess Anne county, Va., between Norfolk and the sea. It was a portion or subdivision of a larger farm of 240 acres.

It was a 240 acre farm, which ten years ago, went begging for a buyer at \$10 per acre; but at the present time is worth \$50 per acre.

This property had been in the hands of tenants for many years, until its

The turning point from a poor to a rich harvest is where



POTASH

is used. All grains demand Potash; therefore the farmer who uses sufficient Potash reaps a large crop of full-headed, plump grain, and strong straw that doesn't lodge. If your soil has grown repeated grain crops, the necessity of using Potash is all the more obvious.

Our books on farming are free. They are a help to those who want better and larger yields.

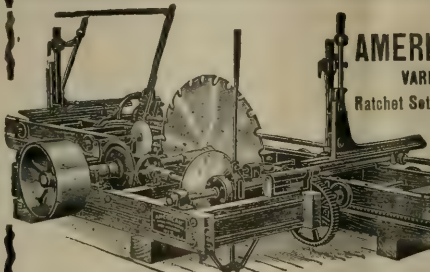
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VARIABLE FRICTION FEED

Ratchet Set Works, Quick Reacder, Duplex
Steel Dogs, Strong,
ACCURATE AND RELIABLE.



Best Material and Workmanship, LIGHT RUN KINE, requires Little Power, Simple, Easy to Handle, Won't Get Out of Order.

\$155.00 CASH

buy it on the cars at factory complete without Saw. Freight very low.

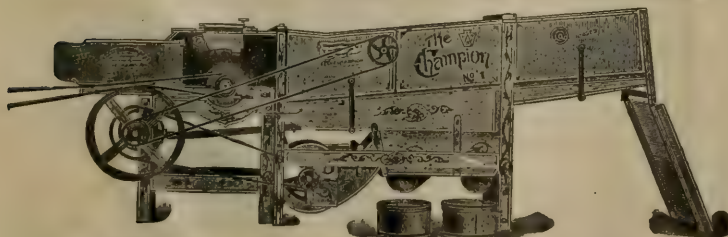
Warranted to cut 2000 ft. per day with 4 H. P. engine. Seven other sizes made. Also Edgers, Trimmers, Shingle Machines, Lath Mills, Rip and Cut-Off Saws, Drag Saws, Cord Wood Saws, and Feed Mills. Catalogue sent free.

"Bowe, Mass., Oct. 24, 1908—I have a No. 1 American Saw Mill and I send you an order for another just like it. I run it with my 5 H. P. portable gasoline engine; have sawed 5000 ft. of lumber in 10 hours with it without any trouble. I use a 48 inch saw. Yours truly, Bradley C. Newell."

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Ellis Champion Grain, Peanut and Cow Pea Thresher,

MANUFACTURED BY Ellis Keystone Agricultural Works, Pottstown, Pa.



We make four sizes of
Grain and
Peanut
Threshers
and Cleaners

NOS. 1, 2, 3, AND 4, FOR EITHER STEAM, LEVER OR TRAP POWER,

All of which are guaranteed to give entire satisfaction. Our THRESHERS and CLEANERS have been thoroughly tested throughout the United States, and pronounced by the growers of GRAIN, PEANUTS, BLACK and COW PEAS as the most complete and satisfactory Thresher of the period. No grower of any of the above can afford to be without one.

For Catalog and any information desired, write to

GEO. C. BURGESS, Gen'l Southern Agent, Box 182, Petersburg, Va.



Annual Reduction Sale of Pure-Bred Poultry.

It is our custom each year in August to offer a large lot of breeders of the previous season also several hundred head of young stock.

BARRED, WHITE and BUFF PLYMOUTH ROCKS; a limited number of our extra select stock bred from the "RINGLETS" "FISHEL" and "NUGGET" strains. Trios, two hens and cock at \$7.50. Pair \$5. Single birds \$3.

200 Barred Rock hens, yearling, for immediate sale at \$15 per dozen. I have many others. In fact, I can furnish the needs of almost anyone. We have about 150 hens we will sell for \$12 per dozen. We have the same offerings in White and Buff hens all the way from \$1.25 each to \$3 per head.

200 S. C. WHITE LEGHORNS (WYCKOFF), (yearlings), at from \$12 to \$24 per dozen. March, April and May hatched pullets of the above breeds and many others from \$10 to \$24 per dozen.

150 S. C. Brown Leghorn hens one year old from \$12 to \$24 per dozen. March, April and May hatched pullets from \$10 to \$20 per dozen. We can sell you high class Rhode Island Reds hens and cocks; White Wyandottes, Golden Wyandottes, Light Brahmas, S. C. Black Minorcas. We will sell you from a single bird to a thousand head of any of the above breeds; will sell them to you for cash or time payments. Pay for them as they pay you. Order now, don't delay. Correspondence solicited. Every bird guaranteed just as represented and reference furnished. Address all communications to

J. HARRISON YATES, DEP'T P., CHANTILLY, VIRGINIA.

productive capacity had been very much reduced. When we began work in April, we were very much in doubt as to our ability to raise satisfactory crops of any kind whatever; but as we had always preached in favor of raising our own hay and grain, our own forage, both long and short, we planted most of our 30 acres of open land to corn and the soy bean. This we did in order to secure an abundance of feed if possible for four head of registered Jerseys, three Jersey calves, two horses, several pigs and about 100 head of poultry.

The first of April found us borrowing trouble, for fear that we could not grow satisfactory crops. The first of August finds us borrowing trouble, for fear that we can't properly take care of the crops, on account of the great growth of the same. Of course we can easily master the corn, as it can be cut and shocked in the field and shocked as needed, and gradually stored later on in the fall and winter. When "laid by" about the middle of July the corn was quite free from weeds and grass. We sowed the cow peas and soy bean in the corn at last week, and now the peas, beans and woods and grass, are knee to hip high and running a race for supremacy and each trying to catch up with the corn, which is now from 8 to 10 feet tall. We can cut and shock the corn, but the tall shocks will be half hid, by the great mass of living green, which will occupy the land until frost cuts it down. We plan to haul off the corn, and turn the fields over to the cows and the pigs to harvest the peas, and beans, and eat the grass. Of course, we could disc down the great growth of vegetation, and plow it under; but in that event we should have a great mass of green stuff close to the surface which might not be desirable or best for crops planted immediately thereafter, as we propose doing, as it is our intention to keep our soil covered, as far as possible, in summer and in winter, with "cover

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THOS. B. MCADAMS, Cashier. Assistant Cashiers J. B. PERDUE, GEO. H. KEESEE.

Three Per Cent. Interest Allowed in Savings Department.

Powhatan County, Va., Mch. 9, 1906.
I receive seven different agricultural papers but none help me as much as the Southern Planter.

W. H. BUSH.

Rockingham County, Va., Apr. 24, 1906.
I do not wish to lose a single number as I prize the Southern Planter very highly.

J. L. MILLER.

crops," and utilize as much of such as may be needed for forage on the farm and plow the balance under for the benefit of the soil.

In all our long experience of 60 years, at the East, West, North and South, we have never seen grass grow as it has grown here this season.

As stated, at the outset we "borrowed trouble" for fear that we could not grow good crops of forage, for stock, on our "poor worn out farm," and now we are "borrowing trouble" for fear that we can not properly care

for, cure, store or stack the abundant crops; and save all that the season and soil has given us. We want information as to the best time to cut the "Soy Bean" crop for feeding whole to stock, without separating the grain from the forage. We want to feed stem, leaves and grain all together. Just now (August 20th), the main portion of our crop is just in bloom, the pods just beginning to form. The foliage is rank, the stems large and well filled with water. How best to save the crop is the ?

A. JEFFERS, Oceana, Va.

GERMAN CLOVER SEED.

N. R. Savage & Son, Richmond, Va., advise us that they are just in receipt of a very large shipment of German clover and that they are in a position to handle all orders promptly.

Goochland County, Va., April 28, 1906.

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D. B. HARRIS & CO.

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Vehicles of all kinds.



"Sunko" Grain Drill.

MAGAZINES.

The September *Century* covers a wide range of interests: exciting travel in Central Asia, the artistic side of the Palisades, mission work in Labrador, present day Zoroastrianism, the beginning of foreign missions in this country, late scientific research into the structural differences of the white and black races, the question of higher education for young men intending to follow agriculture, and stories grave and gay.

Prof. Bailey's presentation of facts and figures gathered at first hand from Cornell University students of young men, setting forth, in two previous papers in *The Century*, the attitude of young men to-day toward farming, is followed by a concluding paper on "The Agricultural College and the Farm Youth," likewise based on students' replies to letters of inquiry. Prof. Bailey makes a good showing for higher education for the young man who is to make agriculture his life work, and for his constancy in "keeping his hand to the plow" after he has undertaken the college course.

The scientific article of the number, and one of much significant interest, is Dr. Robert Bennett Bean's summary of late authoritative researches into the fundamental physical and mental differences of the brains of the white

and black races—differences which, it is now held, must be considered vitally important in any rational adjustment of the relations between the two races, or in a just determination of the character and genius of either race.

"Getting Into Khiva," is the first of a series of three papers by Langdon Warner, recounting the exciting personal experiences of a member of Prof. Raphael Pumpelly's archaeological expedition in visiting this ancient and isolated city. Charles M. Skinner's "The Gates of the Hudson" is a sympathetic appreciation of the Palisades; and there are two articles to make special appeal to the religious world: Gustav Kobbé's narrative of the unselfish, isolated life of the Moravian brotherhood "Down on the Labrador," and the late Henry R. Elliot's story of the "Haystack Prayer Meeting," the starting point of the foreign missionary movement in this country. In "A Religion Nearly Three Thousand Years Old," A. V. Williams Jackson, professor of Indo-Iranian languages at Columbia, draws a vivid and impressive picture of life to-day among the so-called Persian fire-worshippers.

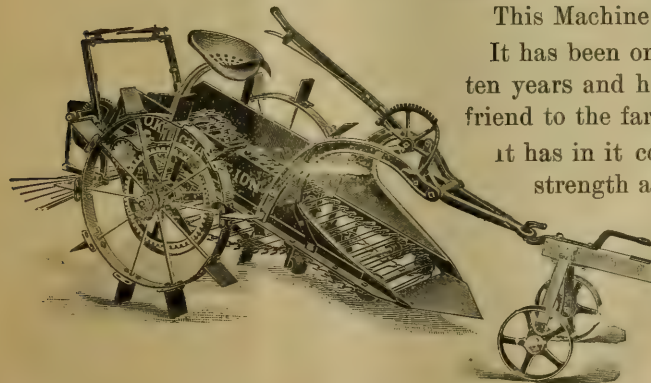
As is fitting in the last number of *St. Nicholas* to reach the young folks before school takes up again, the outdoor interest is strong, with a stir-

ring story of school life and golf, "Which Won?" by Anna P. Paret, the leading feature. The story of "The Great 'Y' and the Crockery 'O,'" by Charles D. Stewart, author of "The Fugitive Blacksmith," is based on some interesting and unfamiliar facts; "Winnie's Ninth Birthday Anniversary" and "Elsie's First Aid to the Injured" are pretty stories; and the serials develop growing interest.

Up in Columbia University School of Mines, a full-sized passenger locomotive, the Columbia, is one of the instructor's most valuable assistants; and an account of "A Locomotive in a School-room" is told for readers of the September *St. Nicholas* by Charles Barnard. Do you know what geographical bottles are? They are the subject of an entertaining and instructive sketch by Walter J. Kenyon.

In the September *St. Nicholas*, too, is pictured a new phase of the San Francisco catastrophe. In the many records hitherto printed and pictured of the disaster by earthquake and fire at San Francisco in April, very little has been told of the share the children of the city had in the dangers and makeshifts of that dreadful time. Of exceeding interest, then, is this sympathetic narrative of "Children and Their Pets in the San Francisco Fire," by Charles Keeler, who had personal experience among the scenes of

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It has been on the market for more than ten years and has proved itself a valuable friend to the farmer.

It has in it combined lightness of draft, strength and durability. This combined with the perfect work of this machine makes it invaluable to the Farmer.

For Catalogue and Prices, write,

Champion Potato Machine Co.,
Hammond, Indiana.

which he writes. The photographs from which the interesting illustrations are taken were made specially for *St. Nicholas*.

"The Chauffeur and the Jewels" is the complete novelette in *Lippincott's Magazine* for September. This is not an automobile story of the "guide-book" species. It is sparkling and alive all through, and the author, Edith Morgan Willett, shows strong individuality in her plot, which she handles with consummate skill. From Southern France to Liverpool, across the ocean to New York, thence in a trip to Washington, where the curtain falls—there is rapid change of scene which allows varied opportunities to a hero who is no more a demon than an angel—and no more a prince than either. "The Chauffeur and the Jewels" fairly demonstrates the truth that between a man who commits a crime and the professional criminal there is a great gulf fixed. No more absorbing bit of fiction has been produced in magazine form for many months.

Adele Marie Shaw contributes a bright satire, upon the "Summer Camp," which she calls "A Night With Nature." A tremendously powerful tale by Francis Lynde is that of a Tennessee mountain miner. Its title is "When the Sun Went Down." "A Drink from the Hassayampa," by George Brydges Rodney, is a jolly

yarn based upon the legend that anybody who tastes the waters of the Hassayampa is forever after incapable of speaking the truth—and the sequel proves it. William MacLeod Raine offers a canny Scotch story, "The Lights of Strathmull"; and "The Fate of Alvars" is a realistic episode of Mexican family life, from the pen of Elliott Flower.

The joys of temporary warm-weather widowhood are entertainingly recited by Minna Thomas Antrim under the fetching title "The Summer Grass-Widower." An informing yet humorous paper from the pen of an ex-Auditor of the Post-Office Department, Henry A. Castle, is upon the subject of "Dissatisfaction in the Country Post-Offices."

The American Review of Reviews continues to be as full of interest as ever, giving for the busy man a worldwide review of all subjects of present day interest, with selections from the best of the articles in the different magazines, bearing on these subjects.

Harper's Illustrated Weekly is a paper always welcome in the household with its fine pictures and well written editorials and articles.

A NEW ENSILAGE CUTTER.

Messrs. W. K. Bache & Son, imple-

menting at their store, a new ensilage and feed cutter, for which they are the local agents, which seems to us to possess many advantages over those ordinarily in use. The knives and shredders are fixed on the arms of a large and heavy fly-wheel, which gives them much greater cutting power with less expenditure of engine power than when around the circumference of a small drum, as is the case with most of the other cutters. The ensilage is blown up into the silo by fan blades, which are fixed on the circumference of the fly wheel carrying the knives, thus obviating the necessity for a separate blower with the extra power required to drive it. Write them for particulars of this machine before buying ensilage or feed cutters.

JAMESTOWN EXPOSITION NOTES.

The Jamestown Exposition, near Norfolk, Va., next year, will be open longer than any similar enterprise yet held in the United States. It is to run from April 26, to November 30—seven months and five days.

The Arts and Crafts Village at the Jamestown Exposition will be a feature never before seen at a national celebration. It is bound to be one of the great attractions, and being something new, it will be visited by millions.

Floyd Stock Farm

Sidney Prince, 32932,

BAY HORSE by Sidney, 4770, dam Crown Point Maid, by Crown Point, 1960. Sire of Prince, 2,164 and 14 others in the list. Fee \$85 season. N. B. Sidney Prince is Virginia's leading sire of speed.

ROD OLIVER, 36169,

hestnut horse, 5, by Electrice, 10878, dam Lady May, dam of Blondie, 2,134, etc., by Port Leonard, 12966. Fee \$25 insurance.

MOKO Jr.,

Brown horse 5, by Moko, 2447, dam Rosa Baron; by Earl Baltic, 17724. Fee \$25. Insurance.

RED DILLON, 38696,

bay horse, 4, by Baron Dillon, 17287, dam Zinda Lake, by Red Lake, 25988. Fee \$20 insurance.

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HACKNEY STALLION,

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Fees: \$5 leap; \$10 season; \$15. Insurance

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or P. O. Box 929, Richmond, Va.

Representing "The Times Dispatch" and "Southern Planter," Richmond Va. "Kentucky Stock Farm," and "The Thoroughbred Record," Lexington, Ky.; "Sports of the Times," New York, and The Horseman, Chicago, Ill.

LORD CHANCELLOR 36614,

trial 2:37 1/2, trotting.

Black horse foaled 1899, 15 1/2 hands, weight 1,100 lbs., sired by Dare Devil, 2460 (son of Mambrino King, 1279, dam Mercedes, by Chimes, 5348, son of Electioneer, 125).

1 dam Princess May R., by Prince Regent, 2:16 1/2 (son of Mambrino King, dam Estabellia, by Alcantara, 2:28, son of George Wilkes, 2:22).

2 dam Mary Western (dam of Skylark, 7:55, grand dam of Merrimack, 2:11 1/2, etc.) by Mohican, 619.

3 dam Mary Lass (dam of Lizzette, 2:25, and Sober in the List,) by Hambletonian, 10.

NOTE.

Lord Chancellor's sire, Dare Devil, considered one of the finest specimens of a trotter in America, is owned by Thomas W. Gentry, the famous Boston breeder, who paid \$10,000 for him to head the Dresden Farm stud. Lord Chancellor is sired by Mambrino King, founder of a family noted for wonderful beauty, matchless style and superb race horse quality.

For terms and extended pedigree, address: W. J. CARTER, 1102 Hull Street, Manchester, Va.

Banks Holt, 43497

Chestnut horse 4, by Gregorian, 2:29 1/2, dam

Winnie D., dam of Hulman, 2:13 1/2; Ginter,

2:10 1/2; Giles Mebane, 2:10 1/2, and Mayo, 2:28 1/2,

by Hannis, 2:16 1/2.

For terms, address,

W. E. HOLT, Jr., Lexington, N. C.

FITZ LEE KING

16 hands, 1100 pounds.

Bay horse; by Kentucky King, 3382 (son of Mambrino King, 1279, dam Rattling Belle, by Almont Rattler, 500); dam Zenobia, by Enchanter, 448. Blue ribbon winner in stallion class at Charlottesville Horse Show, 1906.

For terms, address,

GEO. B. GOODYEAR, Charlottesville, Va.

KING JUMBO,

A good individual and promising sire,
Fee \$5 leap; \$10.00 season; \$15. insurance.

O. N. NUCKOLS, owner, Rio Vista, Va.
R. F. D., No. 1.

FANCY HAL, (saddle stallion) bay horse,
by Prince Hal, dam, Fancy Girl, by Fancy Boy.

KING OF SPAIN, black Spanish Jack. Fees,
\$5 leap; \$8 season; \$12 insurance. Address,

HUNTERS HILL FARM,
Apple Grove, Louisa Co., Va.

FACILITIES FOR VISITING THE EXPERIMENT STATION AT BLACKSBURG, VA.

An Open Letter.

To the officials of the railroads which extended the courtesy of special rates to the farmers attending the farmers' convention at Roanoke, July 10-11-12, 1906:

Sirs—If it be as true as it appears to be that the existence of railroads is dependent directly upon traffic then it is plain that your efforts to induce farmers to meet and learn from each others methods, and from the experiment station officials how to grow better and larger crops is simply a business way of trying to secure more traffic. In other words, simply an exercise of your business instinct. If this view of the matter be correct you have our most hearty appreciation and we earnestly call your attention to the problem which now confronts one of the most enthusiastic and devoted workers that ever gave his best efforts to the upbuilding of Virginia's agricultural interests (Prof. Andrew M. Soule). The membership of the Farmers' Institute is already so large that it was a difficult, yea, an impossible task for the officers and teachers at Blacksburg to explain their work as clearly and concisely as they would have liked to have done to the mem-

bers of the convention who visited Blacksburg July 12th, 1906. Therefore if it is to your business interests to offer inducements to Virginia farmers to attend the yearly convention at Roanoke or elsewhere, would it not be equally as much to your interests to offer an inducement to each member Experiment Station whenever he wished to get a more exact knowledge of the particular branch of farm work which interests him most? A certificate signed by an officer of the Blacksburg station certifying that the bearer was a member of the institute and had visited the Experiment Station for the purpose of studying the work there being done ought to be a sufficient check to prevent any inducement you might offer being taken advantage of by persons for whom it was not intended. Whatever may be your views please reach us through the Agricultural Press. Yours truly,

A. R. Coleman.

Louisa County, Va.

King & Queen County, Va.,

April 23, 1906.

I congratulate you on the excellent paper you edit. R. N. POLLARD.

Always mention The Southern Planter when writing to advertisers.

ENQUIRERS' COLUMN.

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Has but ONE WHEEL, and requires but ONE TEAM and ONE MAN to operate it. By actual test it has been demonstrated that with one man it will build more and better road than can be done by ten men with the usual tools. That it saves labor enough to pay for itself every two days when in use. FOR FARM WORK it has no equal for road work, cutting down ditch banks, opening drains, leveling and other purposes. THE PRICE brings it within the reach of all.

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MANFRED CALL, Gen'l Manager,
Richmond, Va.

SUN-CURED TOBACCO MEN MEET.

Montpelier, Va., Aug 25.
The North Side Sun Cured Tobacco Association was called to order here today by President M. T. Eddleton to receive and act upon the report of its committee on a plan of action, consisting of Randolph Taylor, chairman, Wat Wickham, Fenton Noland, and J. J. Terry.

The plan as outlined in the report submitted by the chairman, Mr. Taylor, and approved by the association, contemplates that pledges shall be obtained from the growers, placing at the disposal of the association their crops of tobacco, with the proviso that no pledge shall be binding until fifty per cent of all the crop of sun-cured tobacco is thus secured. An executive committee will then be elected, one from each county—or otherwise, as may be determined—to which shall be entrusted the entire business of storing and marketing the tobacco. These men must be thoroughly conversant with all the conditions affecting the market for our product, for they will have to decide at what price and in what quantities the tobacco shall be sold. All the expenses of storage and insurance will amount to only \$1.25 per cwt., and the commission on sales to 2 per cent.

Those growers who are so circumstanced that they must have ready money before the crop is sold can obtain advances of 50 per cent on house receipts. If our organization is successful in obtaining control over 50 per cent of the crop, we look for an increase of nearly 50 per cent in the price, in which case it is clear that the grower will obtain in advances about as much as he now gets from the sale of his crop.

Responsible, conservative men, who were present at the meeting, expressed their conviction that the plan thus outlined would appeal with irresistible force to every man of common sense who chafes under the present intolerable conditions, and that the only task before the association was to bring the details of its plan to the attention of all the growers of sun-cured tobacco in the six counties of the belt.

In comparison with the successful organization of the Kentucky tobacco growers, or even with that of the dark tobacco planters of the South Side, the proposition before this association is simple and absolutely feasible. Briefly stated, these growers purpose to fix the price of their product through their responsible, expert executive committee, and to hold until they get

it. This association has raised the standard and pointed the way of escape from the peristent condition of peonage under which all the sun-cured tobacco growers are groaning, and we call upon the men of Louise, Caroline, Goochland, Henrico and Spotsylvania to lend us a strong helping hand. For details of every kind inquirers are directed to J. J. Terry of Negro P. O., Hanover Co., Secretary of the Association.

Terms of Sale of Live Stock.

Editor Southern Planter:

It seems to be necessary to ask you to publish the following:

I, as well as other breeders are continually receiving orders to "ship stock at once, will send check when stock arrives." This is not the proper or customary style of selling. No breeder can afford to take a purchaser's money, and fail to ship the stock, even though the breeder may be a man of no high moral character. When stock is ordered at once no time is given the seller to investigate the purchaser.

It is an easy task for a suspicious or doubting buyer to investigate the breeder when he anticipates a deal.

Jno. F. Lewis.

Rockingham County, Va.

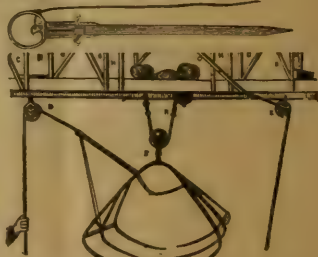
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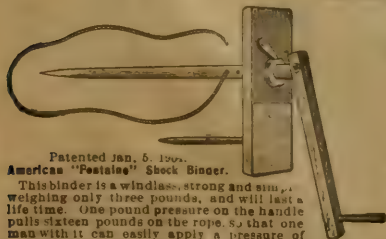
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Plain and Fertilizer Hoe and Disc Drills, all sizes



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Patented Jan. 5, 1904.
American "Fostalgue" Shock Binder.

This binder is a windlass, strong and simple, weighing only three pounds, and will last a life time. One pound pressure on the handle pulls sixteen pounds on the rope, so that one man with it can easily apply a pressure of over 600 pounds, thereby compressing a shock at the top so tightly that it will not fall or be blown down, and will not be injured by getting wet inside when it rains. Both ends of the rope are drawn by this binder so that the shock is compressed evenly without being pulled over to one side.



Scientific Steel Corn Harvester.
The best Harvester on earth for standing corn. Safety seals. Safety shafts.



Kemp's Twentieth Century Improved Manure Spreader. Made in Five sizes. Write for special Catalogue and prices.

ANTI-DIRT MILK PAIL.

1st. It prevents dirt, hair and other substances from dropping into the milk while milking.
2d. It strains the milk twice through two fine strainers while milking.

KEYSTONE HAY LOADERS and SIDE DELIVERY RAKES also. HAMPION STEEL HAND and SELF-DUMP RAKES, and TENDERS all sizes.

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**Agriculture is the nursing mother of the Arts.--XENOPHON.
Tillage and pasturage are the two breasts of the State.--SULLY.**

67th Year.

Richmond, Va., October, 1906.

No. 10

Farm Management.

WORK FOR THE MONTH.

At the time of writing our article "Work for the Month" for the September issue the long continued rainy spell of nearly three months had not ceased and farmers everywhere in the South Atlantic States were beginning to be much disheartened at the probable loss of the results of much of their labor. Wheat and oats were still largely in the shocks in the fields and these were covered with a heavy growth of sprouted grain. Corn was overgrown and the ears not filling well and grass, clover, alfalfa and forage crops were spoiling for want of cutting. Fortunately a favorable change came over the weather about the 1st of September and since that time the month up to this writing (20th September), has been all that could be wished. The ground and crops dried quickly and the threshing of wheat and oats was resumed. Examination of the shocks and the work of the thrasher confirmed the worst fears as to loss of grain by sprouting and rotting. Thousands of bushels of both wheat and oats have been absolutely lost in these South Atlantic States and other thousands are fit only to be ground up for hog and stock feeding. The work of saving the second and third crops of grass, clover and alfalfa and the crops of peas, sorghum, millet and other forage crops has made great progress and barns and sheds are beginning to look well stored with winter feed. The wet season has conducted to much heavier growths of these crops than usual and with the heavy growths of silage corn and corn fodder there would seem to be every probability of a

greater abundance of feed for live stock than probably ever before was produced in these States. Farmers in the South have at last begun to realize that live stock lies at the root of successful profitable farming and that the great essential for this is an abundance of winter feed and hence they have given more attention to the production of forage crops than ever before. A few more years of similar work will stop the purchase of Western hay for feeding Southern stock and will keep thousands of dollars at home. There is no reason whatever why a bale of Western hay should come into the South. Our farmers can produce, and produce profitably, all the hay which the cities and towns of the South call for and at the same time produce an abundance of other crops, cow peas, cowpeas and sorghum, cowpeas and millet, soy beans and corn fodder and silage to feed a greatly increased head of livestock on the farm without the need to consume any of the hay grown here. It can be made a surplus crop and go to the cities and yet more live stock be kept and more manure be made on the farm to take the place of commercial fertilized than ever before. The Western and Northern hay crops have been largely a failure this year and the price of hay is advancing and Southern farmers ought to be able to secure a good price for their product this winter.

The harvesting and threshing of the spring wheat crop in the Northwest has confirmed our opinion expressed in our last issue that this crop would be smaller than anticipated, but the total wheat crop

of the country will be near a record one. The harvesting of the English and European continental crops has progressed most favorably and the indications now are that the crops will be in excess of anticipation. In England the crop is above the average and Hungary, Roumania and Austria have record yields. France also will produce all the wheat she needs and Spain and Italy have crops largely in excess of those of last year. The yield in Russia is problematical but that country undoubtedly will export considerable wheat as it needs the money badly. In the face of this prospect and of the greatly increased crop in Canada which is now being harvested we see no reason to expect any considerable advance in the price of wheat. The countries needing to import, mainly England and Belgium will be able to get all they require at or near present prices.

The prospects of the corn crop are still excellent, and it may now be considered safe, as even in Iowa the greatest part of the crop is reported to be beyond injury by frost. The yield will be a record one, probably near 2,750,000,000 bushels and yet in the face of this prospect the price still keeps good, showing the marvellous capacity of the country to consume corn. In the South the yield will likely be a record one, and much more of it will be consumed on the farm than in the past. It is a most cheering and significant fact that more of the corn crop now goes on foot to market here than ever before. This means fertility kept on the farm and money in the pocket.

We hear no very cheerful reports as to the tobacco crop of this and adjoining States. It is now being cut and cured, and the indications are that it will be less in quantity and decidedly poorer in quality than that of last year. Prices keep firm and are advancing. Primings are being sold at \$5.00 and \$6.00 per hundred on our local markets. If there be a similar demand for best leaf the money realized from a smaller and inferior crop may likely be larger than from the average crop of the past few years.

The cotton crop is not likely to be so large as was at one time anticipated, and the price consequently keeps firm. There is being considerable difficulty experienced in many sections in getting pickers, and this may ultimately lead to a still further re-

duction in the marketable crop, and have some bearing on the price level.

The indications still are that the peanut crop will be much below the average, and as a consequence the price of nuts is advancing. Sales have been made at the highest price known for years, and those who have made a crop are likely to be well paid for their labor, if only labor can be had to handle the crop.

The sweet potato crop, like the Irish potato crop, has suffered severely from the wet season, and there is an excessive growth of vine with a proportionate decrease in the marketable crop of tubers, and it is doubtful whether these will keep well. The crop is now being shipped from Tidewater and the Eastern Shore of Virginia, and fair prices are being realized. We would advise careful sorting of the crop before storing, and the keeping out of store of all tubers showing any indications of disease or bruising, and that the stored tubers should be well dried off as soon as stored.

The work of seeding grass and alfalfa was taken up vigorously as soon as the rain ceased and the ground dried sufficiently, and the first seedings now show up beautifully and are making quite a sod on the land. All grass and alfalfa seeded in September should this year make a good stand as the land was so well supplied with moisture to hasten the growth. If only the seeding was not done too hastily and the land well prepared, there ought to be no difficulty in securing such a growth as will resist any reasonable degree of frost. If a top dressing of fine, well rotted manure can be given in November or December it will greatly help both alfalfa and grass and clover to pass safely through the winter. In applying this be careful not to leave it in lumps on the ground, but break finely. We have often helped a weak stand in this way before the hard weather of the winter set in and saved it from injury and secured a good crop from it.

The seeding of crimson clover, though usually not to be advised much after the end of September, may, we think, this year be properly continued up to the middle of October, as it is more than probable that we shall have a late fall and the ground is in good condition to secure a good seed bed which will insure quick germination and good growth before any severe frost is likely. We have known the crop sown in No-

vember and a good stand secured and a heavy crop grown, but this is usually much too late for any certainty of success. The middle of October is the latest period at which we would sow crimson clover, and we would always seed with it at least three pecks of wheat, oats and rye mixed in equal parts, so that if frost or drouth should kill the clover there would certainly be a cover of some crop on the land. The grain will also help to ensure a stand of the clover by shading and protecting it in hard weather. Hairy vetch should be seeded this month freely, as it can certainly be relied upon to make winter and spring grazing, and a good crop for green feeding or cutting for hay in the spring. Sow the vetch at the rate of three-quarters of a bushel or a bushel to the acre with half a bushel of wheat and winter oats per acre. These two leguminous crops are of such value as gatherers of nitrogen from the atmosphere and as conservers of fertility in the soil and as a means of providing humus for the permanent improvement of the land that we cannot too strongly urge upon farmers the importance of seeding them at once. Plow the land deeply, apply if possible about a ton of lime to the acre, which harrow in lightly and let lay for a week. Then apply, if the land is thin or lacking in fertility, 200 pounds of acid phosphate or 500 pounds of raw phosphate rock per acre, broadcast and sow the seed and harrow in and, if dry, roll. As a preparation for a corn crop this system of improving the land by growing and plowing down a leguminous crop will beat all the commercial fertilizer that can be purchased, and the cost is small. We know lands that ten years ago would scarcely sprout peas, which have in this way been brought up to such a state of fertility that they now produce profitable crops of all the staples, and are now fitted for putting down to clover and grass, with the certainty of holding on the soil and making good returns. Each crop grown should be followed with a leguminous crop to be grazed off or plowed down, and the improvement of the land is certain. With humus in the soil, moisture will be retained, microbic life will be encouraged, and instead of a dead, inert, readily baked soil we shall have an open, life-sustaining and life-promoting soil, and crops cannot fail to succeed. It is an absolute waste of money to buy fertilizers and bury them in land lacking in humus, and growing these leguminous crops is the cheapest way in which to secure this humus. Don't let the fall go by without seeding every acre possible in clover and vetches. In our last issue will be found an article urging the growing of hairy vetch as a seed crop, to which we invite attention.

While we don't advise the seeding of winter oats so late in the fall as October, except in the coastal plain of North and South Carolina, where they may yet be sown with a fair certainty of success, if the advice we gave in our last issue as to the manner of seeding be followed, yet we are aware that many crops will yet be seeded in this State and in the Piedmont sections of the other Southern States. We would urge that where it is decided to seed thus late, our advice given in the last issue should be closely followed, and a top dressing of farm-yard manure should be applied before the setting in of severe weather. The importance of this top dressing of farm-yard manure cannot be too strongly emphasized, for both winter oats and wheat when late seeded. The young plants are weak and tender and the roots are small and tender, and very little frost can do an immense amount of damage. The way to prevent this is to give them protection on the surface by covering it with manure, even if this manure be largely straw and other dry forage, indeed we are strongly of opinion from practical experience, that long strawy manure is better for the protection of the crop than well rotted manure. The well rotted manure provides more available food for the crop, but it is not so much food that is needed at this time of the year as protection of the soil from heaving by the frost.

The seeding of the wheat crop should now have prompt attention as soon as ever the weather becomes sufficiently cool for the same to be done without risk of damage by the fly. The warm weather we have had in September will have caused the risk of injury from the fly to be much greater, and it will be very unwise for any one to seed wheat until we have had a frost or two to kill these insects off. Trap crops should have been sown as advised in our last issue, and these be plowed down before seeding the main crop, and thus get rid of the flies, which will have settled on them and there laid their eggs. Plow the crop down deeply and roll the land. Instead of hurrying to sow the wheat because the ordinary seeding time has come, let the time until cold weather sets in be spent in making fitter the seed bed of the land intended to be seeded. In our last issue we wrote very fully on the best method of preparing the land for wheat seeding, and to that issue refer our readers. To what we then said we have only this to add that very much of the inadequate yield from the wheat crop in the South is more to be attributed to faulty and careless preparation of the seed-bed than to any want of fertility in the soil. This poor preparation often amounting only to one plowing and harrowing

of the soil and frequently to only a harrowing, leaves the natural fertility in the soil beyond the reach of the crop. It should always be borne in mind that wheat is a crop to which no help in the way of cultivation can be given after it is once sown, except it may be to the extent of a harrowing of the crop in spring. This being so, it becomes of vital importance to thoroughly prepare the land before the seed is sown. It should be harrowed and reharrowed, and rolled and rerolled if need be, until the finest seed bed possible is made. The surface, three inches of soil, should be as fine as a garden bed, and the sub-surface be also finely broken, but sufficiently consolidated again by rolling to restore its capillarity, and thus permit the moisture from below to come to the surface and ensure quick germination. From our long experience in wheat growing we are convinced that this fine and perfect condition of the seed bed has more bearing on the yield of the crop than the question of the quality or quantity of the fertilizer used. And yet this question of the fertilizer to be used is important. We are every day in receipt of letters asking us for advice in this subject. All the experiments made go to show that phosphoric acid is the element most needed on nearly all soils for a profitable wheat yield, and next to this comes nitrogen. In nearly all clay soils there is potash sufficient for the needs of the crop, but in many, perhaps most, of these soils this potash needs to be made available by the use of lime. In our own practice we always gave a dressing of lime previous to seeding wheat, working the same with the soil in preparing the seed bed, and saw abundant evidence of the value of this dressing. This has also been the conclusion of many who have tried the experiment here. As showing the importance of phosphoric acid we know no experiments more convincing than those made in Ohio, which we referred to last year at this season. We repeat what we then said, quoting from the Experiment Station Bulletin:

"One of the farms belonging to the Ohio Experiment Station had been rented for many years before it came into possession of the Station, and was reduced to a very low state of productiveness. On this farm a five-year rotation, of corn, oats, wheat, clover and timothy, has been maintained since 1894, the rotation being so planned that each crop is represented every season.

Part of the land in this experiment has had no fertilizer or manure of any description since the test began; another part has had acid phosphate only, used at the rate of 80 pounds per acre each on corn

and oats and 160 pounds on wheat, making a total of 320 pounds for each 5-year period. Another part has received the same quantities of acid phosphate, with 260 pounds of muriate of potash in addition—80 pounds each on corn and oats and 100 pounds on wheat. Still another part has received the same quantities of acid phosphate and muriate of potash, with 400 pounds nitrate of soda—160 pounds each on corn, oats and wheat. The total cost per acre for these different combinations of fertilizing materials for each 5-year period has been as follows:

For acid phosphate alone	\$ 2.40
For acid phosphate and muriate of potash...	8.90
For acid phosphate, muriate of potash and nitrate of soda	20.90

The average yield of wheat on the unfertilized land for the twelve years, 1894 to 1905, inclusive, has been 8.6 bushels per acre. This yield has been increased by the different fertilizing mixtures to the following 12-year averages:

By acid phosphate alone	15.9 bus.
By acid phosphate and muriate of potash...	17.5 bus.
By acid phosphate, muriate of potash and nitrate of soda	24.3 bus.

If we value wheat at one dollar per bushel, corn at half a dollar, oats at one-third of a dollar, hay at eight dollars per ton, corn stover (fodder) at three dollars and straw at two dollars, the total increase from all the crops for each rotation in this experiment would have the following total and net values, the net value being obtained by deducting the cost of the fertilizer:

	Total.	Net.
From acid phosphate alone	\$16.72	\$14.32
From acid phosphate and muriate of potash	24.08	15.18
From acid phosphate, muriate of potash and nitrate of soda.....	40.72	19.82

It is apparent that on this worn soil the complete fertilizer, containing nitrogen and potassium as well as phosphorus, has produced by far the most profitable increase of crop, although the cost of this fertilizer has been more than eight times as great as that of acid phosphate alone.

In another experiment on this same farm, corn, wheat and clover have been grown in a 3-year rotation since 1897. Part of the land in this test has re-

ceived no manure or fertilizer, while a part has been manured for the corn crop with cattle manure, used in all cases at the rate of 8 tons per acre and plowed under, the corn being followed by wheat and clover without further manuring or fertilizing. Part of this manure has been taken from an open barnyard, where it has lain during the winter; part has been allowed to accumulate under the feet of the cattle in their stalls until it could be hauled directly to the field, and with a third part—also stall manure—acid phosphate has been incorporated during accumulation, the phosphate being used at the rate of 40 pounds per ton of manure, or 320 pounds per acre.

In this test the unmanured land has produced an average yield of 8.9 bushels of wheat per acre; the yard manure has increased the average yield to 16.3 bushels, the untreated stall manure to 17.9 bushels, and the phosphated stall manure to 24.2 bushels.

Taking all the crops of the rotation, and estimating their value as before, the total value of the increase from each method of treatment has been as below:

From 8 tons yard manure, untreated.....	\$20.35
From 8 tons stall manure, untreated.....	27.58
From 8 tons stall manure, phosphated.....	44.35

The nitrate of soda and muriate of potash used in the first experiment have cost \$18.50 per acre for each rotation, and have been paid for with a large profit besides, in the increase of crop; but the 8 tons of stable manure, used in connection with the same quantity of acid phosphate, has produced a much greater increase of crop than these expensive chemicals.

These experiments demonstrate the vast importance of furnishing the wheat crop with an abundant supply of nitrogen and potash, as well as of phosphorus, when it is grown on worn land, and show that in farm manure we have a most effective source of nitrogen and potash, the value of which may be more than doubled by protection from the weather and reinforcement with phosphorus."

There is great instruction to be gathered from this report, and we commend it to the careful consideration of our readers. In the matter of supplying the nitrogen called for, we have always been averse to the application of nitrogen in any form in large quantity at the time of seeding. When used freely the effect is to cause a quick, tender growth of the plant. This growth is very susceptible to damage from even a light frost, and when so damaged, the future well doing of the crop is hindered. Especially

are we averse to the use of nitrate of soda at this time. This is the most quickly available form in which nitrogen can be applied to any crop, and our experience in its use has convinced us that it never ought to be used except upon a crop in an active state of growth. Used at any other time it is likely to be largely lost. To supply the nitrogen required to give the wheat crop a gentle stimulation at the start we have never found anything more suitable than bone meal. In this fertilizer we have about 4 or 5 per cent. of nitrogen in an organic form, and slowly available, and this seems to be just what the crop needs. Its early availability is helped by the warmth of the soil at the usual time of wheat seeding. For the further nitrogen required by the crop we would use nitrate of soda applied in the spring, after the crop has started its growth. Our experience when using nitrate has been very satisfactory, and we have a number of reports from subscribers confirming this. When manure from the stables or pens is available it ought to be used freely and with it acid phosphate should be applied, say at the rate of 40 pounds to the ton of manure. In this way an excellent wheat fertilizer can be made up. In using the barn-yard manure we would advise that it be applied on the surface of the soil after plowing and be worked in with the harrow or cultivator. Do not bury it in the bottom of the furrow. The wheat will need it before its roots can get down to the bottom of the furrows to get it. Bear in mind what we said in our September issue as to recleaning the seed and blowing out the small, light grains, and also as to soaking in formalin to destroy smut germs. As to the variety to be seeded, we feel very considerable difficulty in advising on this point. We had hoped to have received considerable help from the work done at Blacksburg in variety testing this year, but an examination of the report we have received from the Station leads us to the conclusion that we ought not to cite the yields there made as guides for the variety to be seeded. It is very evident that many of the best varieties for this and adjoining States are not acclimated to Blacksburg conditions as yet, and therefore the yield there made cannot be taken as indicative of the value of these varieties and would unduly overestimate the value of other varieties more fully acclimated to that section. We would name as amongst the best varieties for the State, Harvest King, Currell's Prolific, Fulcaster, Fultz, and Early Ripe. Fulcaster and Fultz are both well tested and approved varieties in most sections of the South, and have in the past made some of the heaviest yields recorded. The other varieties named are newer va-

rieties which promise well in sections where tested and acclimated. Sow plenty of seed. Only the richest land can be expected to produce a heavy crop from a bushel of seed per acre. We never sowed less than two bushels per acre, and on thin or unfertile land two-and-a-half or three bushels is none too much. You cannot get bushels at harvest time without stalks to carry the heads, and you cannot get stalks except on rich land without sowing plenty of seed. Only on good land will the plant tiller largely and unless a thin seeding tillers largely it cannot make the stalks required to yield a heavy crop.

Have all the corn crop cut off at the root and do not waste time pulling fodder and cutting tops. Cut the crop down as soon as the grain in the ears is well glazed and dented, and whilst the stalk and fodder has still plenty of nature in it. Set up in shocks to cure and the result will be good corn and good fodder. Don't make the shocks too large. After all the rain we have had the corn stalks are full of moisture and will require plenty of sun and air to reach them to cure them thoroughly. Tie the shocks round the top to keep them compact, and then they may be expected to stand until fully cured. When fully cured have the fodder shredded and pack into the barn, and you will have an abundance of feed which the stock will eat readily, and upon which they will do as well as upon timothy hay. Let the city horseman have the timothy hay at from \$15.00 to \$20.00 per ton, and keep your stock on the farm on equally as good feed which costs less than \$2.00 per ton to grow, save and shred. Don't waste any of the corn crop. Every part of the plant is good feed, and it has all cost money and labor to make.

NORTH GARDEN FARMERS' CLUB, V.A., DR. S. A. ROBINSON'S FARM.

The North Garden Farmers' Club met at the home of Dr. Samuel Adams Robinson on June 29, 1906. This was not a regular meeting, but Dr. Robinson invited the Club and some other guests to meet at his house on that day to celebrate the 100th anniversary of the birth of his father, Rev. John Robinson, who was born near Winchester, Virginia, on June 29, 1806.

Dr. Robinson is a retired physician from New York City, who in 1904 purchased "Cove Lawn", a fine farm of 600 acres near Covesville, Albemarle county, intending it as a home for his son, Mr. Rush Adams Robinson, who died last spring. He has

spent a large sum of money in improving it, and now has one of the finest equipped stock and dairy farms in the South.

The Club first visited the large cattle barn which was quite a revelation to them. It is one of the largest barns in this part of the State. It was filled with a herd of the best pure-bred Holstein cattle. The cows were sleek and in excellent condition, weighing from 1200 to 1600 pounds each, and have official records of from 60 to 80 pounds of milk per day. All but two of them are in the Advanced Register, and the official records of most of them are from 16 to 26 1-4 pounds of butter in 7 days. Several have been prize winners at the St. Louis Exposition and New York and other State fairs. The herd is headed by Pontiac Calypso's Son, a magnificent bull descended from the finest strains of Holsteins. King Ormsby Friend is another very fine bull. His dam produced in an official test 16.22 pounds of butter in seven days when under two years old, and 19.55 as a three-year-old; and Duchess Ormsby, the dam of his sire, made an official record of 24 1-4 pounds of butter in seven days, her milk testing 5.44 per cent of fat. But we cannot mention all of the choice animals of this herd. It is undoubtedly the finest herd of Holsteins in the South.

The barn has cement floors and every modern convenience. The cattle are fed and watered in cement troughs. The water is brought from a mountain spring and conducted all through the barn. It can be warmed by steam before reaching the mangers, so that it is never necessary to give the cattle cold water. Fire plugs are in convenient places to use in case of fire. There is a 6 H. P. boiler in the barn and a 5 H. P. engine furnishing steam and power to do the work of the barn and run a model dairy, which is equipped with all the necessary machinery for making butter and handling milk and cream.

A large cement and steel silo at one end of the barn is also quite a sight. The barn is in charge of Mr. J. B. Loomis, an intelligent and experienced herdsman from New York State. The Club members feel very much indebted to him for the courtesy shown them.

Live stock is not the only industry on the farm. For a great many years fine apples have been grown quite extensively, the leading varieties being Albemarle Pippins, Winesaps, and York Imperials. The orchards look well, having been carefully pruned and sprayed since the Doctor bought the place;

and there is a large crop of choice fruit this year on the same trees that bore heavily last year, showing that the Doctor's theory that proper cultivation will produce a crop every year is correct. His Albe-marle Pippins topped the London market last year. Last year the Doctor found an Esopus Spitzenberg tree among his York Imperials, and believing the apples to be as fine as any he had ever seen, he sent a box of them to the leading dealers in fancy apples in New York. This firm has for several years handled the product of the Oregon Hood River Apple Growers' Union, which are the highest priced apples in the world, and one of the firm had just returned from Oregon after buying the crop of 1905. The Doctor had told them of the tree and that he had spent several years in Oregon and knew Oregon fruit and the method of growing it, and that he had about 75 acres that would grow as fine Spitzenbergs as could be grown in Oregon. They thought the Doctor was mistaken as to the quality of fruit he could raise, but after receiving the apples wrote him the following letter:

"New York, Oct. 21, 1905.

Dr. S. A. Robinson,
Covesville Va.
Dear Sir,—

The box of apples you expressed us reached us to-day and am pleased to report that we are agreeably surprised to learn that Virginia could produce apples like the sample. It is a revelation, and think you have got a good thing if you can raise that kind of fruit in your orchard. In our conversation with you at our office we were somewhat skeptical of your statements regarding the quality of fruit you could raise. We have every reason to agree with you now, that as fine fruit as is raised in Oregon can be raised on your place. We certainly do believe that it will be advisable for you to set out that variety of fruit in the land that you propose to clear, as we consider that you can make no mistake in doing so."

RAE & HATFIELD.

Last winter the Doctor went to Oregon and selected 10,000 scions from the finest Spitzenberg trees in Hood River Valley and sent them here by express. Prof. Wm. B. Alwood had in the meantime procured the best and hardiest stocks to graft the Spitzenbergs on, and after the scions came put out a nursery of 18,000 root grafts and two-year-old trees which are doing well. The Doctor cleared about 30 acres of his Spitzenberg land last winter

and will start his orchard soon. Prof. Alwood has been the Doctor's counsel ever since he bought the farm. There are about 200 acres in crops on the farm which are looking well.

Mr. John MacGregor, an experienced farmer and horticulturist, is the Doctor's farm manager and took great pleasure in showing the members of the Club over the place.

There is a new two-story sheep barn 20 by 60, and a two-story implement barn 18 by 45, with a lean-to 12 by 45 and an engine house 15 by 18; a new hog barn 22 by 48 with cement floors and running water; a new corn house which will hold over 2000 bushels; a flock of pure-bred Dorset sheep; 60 grade Berkshires and a pure-bred boar; ample machinery and tools, including 15 H. P. portable engine; silage cutter; four wagons; seven mules; two yoke of good oxen; etc., etc.

After being entertained in old Virginia style by the Doctor and his accomplished daughter-in-law, the Club passed a vote of thanks and adjourned.

J. G. MARTIN, Sec.

FINE VIRGINIA ALFALFA.

Editor Southern Planter.—

On the 5th of August I had the pleasure of visiting Mr. T. O. Sandy at The Grove Stock Farm near Burkeville, Virginia, and while there saw the most remarkable growth of alfalfa which I have ever known. Though familiar with alfalfa growing in nearly all of the States which are celebrated for it, I was greatly surprised.

The history of the crop is that between August 10 and 15, 1905, Mr. Sandy seeded 12 acres to grass using four parts of timothy, four parts of herd's grass, and one part of clover seed. Hoping to inoculate the land with alfalfa, he added one bushel of alfalfa seed to the mixture which gave five pounds of alfalfa to the acre. The ground was well prepared and the seed drilled in with 400 pounds of raw bone to the acre. It was cross drilled, half the seed and half the fertilizer being used each way. The seed caught well, and during the winter, Mr. Sandy top dressed it with four tons of manure to the acre, using a manure spreader.

Beginning July 9, 1906, he cut 70 loads, as nearly equal as possible, of well cured hay, weighing 1500 pounds each, making 52 1-2 tons on the 12 acres. I examined the hay in the mow and found it nearly all timothy, herd's grass, and clover, though there was considerable alfalfa. I measured some of the clover which was 49 inches long. This was

a remarkable crop of hay, but I found something much more remarkable when I visited the field on the 6th of August, less than a month after the hay was cut. I found that the alfalfa had practically driven out the other grasses and taken possession of the land. I have often seen thicker stands of alfalfa in California, Oregon, Nebraska, Kansas, and other well known alfalfa States, but I never saw more vigorous and promising alfalfa less than a year old. It should have been cut several days before I saw it.

Wishing to learn as much about it as possible, I selected a square yard of as nearly average growth as I could find and cut it. I then cut four square feet where it was especially heavy, though no better than much of the field would have averaged. I found from ten to seventeen stalks to a root, most of them being from twenty to thirty-four inches high. I wrapped the cut alfalfa in paper carefully to prevent it from drying until I could weigh it. Wishing to see how well it was rooted, we dug up several plants, each of which had large, long, and vigorous roots. One root had grown to the depth of twenty-six inches, about twenty of which was in stiff, red clay subsoil. In the evening of August 7, I weighed the cut alfalfa accurately on my postal scale. It is a Fairbanks scale, such as is used by the Post Office Department of the United States government, and it was perfectly balanced. The alfalfa cut upon an average square yard weighed at the rate of 9,529 pounds to the acre; and that cut from the heavier piece, at the rate of 13,442 pounds to the acre. It was nearly green, as the paper had prevented much evaporation, although the alfalfa had made it moist. After being thoroughly cured and probably as dry as it would have been if taken out of a mow in the spring, that of the average growth weighed at the rate of 3,063 pounds to the acre, and the other at the rate of a fraction over 4,320 pounds to the acre.

I was so much impressed by this crop that I determined to learn more about it, and on the 24th of August returned to Mr. Sandy's, taking my soil auger. The surface of the alfalfa field was probably a light, sandy loam from three to six inches deep, but having been plowed 10 inches deep, the clay sub-soil had been mixed with it. On boring, I found the sub-soil to be red clay, varying in different parts of the field from the stiff red clay of the Piedmont region (the Cecil clay of the United States Bureau of Soils) to a lighter red, but everywhere a stiff clay to as great a depth as I could examine it with a four foot auger.

Knowing the value of alfalfa, and realizing what its successful cultivation and judicious use could do to restore and maintain the fertility of Virginia soils, I believe Mr. Sandy's success with it is the most promising thing for agriculture in Virginia that I have seen. Mr. Joseph E. Wing, the well known correspondent of *The Breeder's Gazette*, and probably as well informed regarding alfalfa as any man in the world, told me that the best alfalfa land on Wing Brothers' "Woodland" farm is a hill of stiff, red clay, and that since they have raised alfalfa on it, it is equally good for corn. His experience and the character of the sub-soil which produced Mr. Sandy's wonderful crop prove that there is a great deal of excellent alfalfa land in our State.

We can not all do as well as Mr. Sandy, for his ability and energy are about as remarkable as his alfalfa, but each of us can try and will succeed in proportion to his ability and thoroughness.

The Grove Stock Farm is a fine estate of 1000 acres with a comfortable old Virginia mansion in which he has an intelligently happy home. One can not enjoy the genial hospitality of that home without feeling that its inmates deserve all the good that has come to them.

SAMUEL ADAMS ROBINSON.

Albemarle Co., Va.

MR. CLARK'S GRASS AND ALFALFA CROP.

Editor Southern Planter,—

Now, comes the report of my second crop of Timothy and Red Top for 1906 and third crop of alfalfa. I have cut my second crop of Timothy and Red Top earlier than I otherwise would except with the hope of getting a third crop. I am adding a little more fertilizer for the third crop and later will report what the results are. It has been very wet in this section since July 1st. I have once before tried for a third crop with good success and as the season seems favorable to such action I am now going to try again this year. With irrigation this third crop would be easy. I have already cut my alfalfa the third time. While it is not altogether satisfactory yet I think that there is a very good chance to utilize many of the high and dry fields by growing alfalfa.

The worst trouble in growing alfalfa is in the matter of drying. A German reared in the alfalfa district of Germany explained to me how they made racks in their well watered country and put the hay on. Those racks were made about 1 foot high and 2 feet square and I put my first crop up that way

but didn't find very much satisfaction from that method. I think we might cure alfalfa that way in a season so wet that it could not be cured any other way. My second crop of alfalfa this year was mowed as close as I could with my mower, raked together in wind-rows two or three hours after cutting, heaped that night, next morning I doubled up the rows opening very narrow, turning it by hand enough so the leaves would not be so crisped as to fall off. I heaped it up that night in larger heaps than at first, next morning I doubled up the rows, again opening narrow and kept it rolling by hand, keeping the green locks on top. This was repeated seven days, kept doubling up the rows and making heaps larger until I had four to six hundred pounds of hay in a heap, keeping it shook up by hand all the time enough so that the leaves wouldn't become dry and crisp. On the afternoon of the eighth day I carted it in. The three crops thus far for the season have produced over four tons to the acre and I expect to get another crop yet this year. Please tell your friends not to rush into growing alfalfa, go slow until they get more fully acquainted with its production.

Now, as to my second crop of Timothy and Red Top. I have cut the second crop earlier with the expectation of getting a third crop. The first crop was 51 tons from 11 acres and the second crop 18 tons from 9 acres. The first crop had three days full clear sunshine and the second crop five without any rain on either crop which makes the hay very fine complete feed. By the way, after curing the alfalfa, (second and third crop) I put it in a high, dry loft by itself so that the mows would be small and well surrounded with air. So far the method described herewith is as well as I think can be done with my present knowledge of the crop. If you handle it as you would an ordinary hay field and let it lie and dry, the leaves would crisp on the outside and fall off leaving you nothing but stalks to cart into the barn. Something has to be done to save the leaves.

One more word in relation to alfalfa. My second crop is in the barn where I keep my cow. She has a very nice pasture of thrifty grass but when she comes in at night, the man who takes care of her lately has been giving her a small fork full of alfalfa and he tells me that she will eat that hay in preference to any other feed she can get.

GEORGE M. CLARK.

Higgamum, Conn.

ALFALFA GROWING IN SOUTHERN VIRGINIA.

Editor Southern Planter,—

Some time ago you asked me to make further report on my alfalfa experiment. I beg to report as follows: Cut first time, May 1st; second, June 5th; third, July 11th; fourth, Aug. 5th, and last and fifth cutting, Sept. 8th, which was hauled up to-day, making about 1500 lbs. The first cutting made 2250 lbs., and the third 2500, the others ranging from 2000 to 2250 giving me a total of 10,450 lbs. of hay per acre. There will yet be another cutting but I think I will clip it and let lay on the land if not too heavy. I will sow three acres more this week. My seed this year tested 98 per cent. pure seed at U. S. Department of Agriculture.

Right here I want to score one for peas, and wish to ask you if it will stand. It is this: I stated to you in the spring that I sowed nitrate of soda on my alfalfa at the rate of 100 lbs. to the acre on three-fourths of it and on the other fourth none was used. This was applied some time in April. At no time during the year up to this could any difference be seen, in color, size or any other way. I called the attention of Mr. B. F. Scales and others to the fact and no one could see where it was left off. Now I contend that as this land has been run in peas for the past 7 years that the land was filled with nitrogen and as the alfalfa could take up and use only so much, the nitrate applied had no effect. If you can account for it in any other way I would be glad to have it.

There is one thing sure with me and that is that I do not expect to throw away next spring \$5.00 per acre in the form of nitrate of soda on the three acres that I am now seeding, as the land is identical and has been run in peas every year for the last 7. It is yet to be seen how alfalfa will hold its own with crab grass. I will report on this next season.

D. F. DUNLOP,

Henry Co., Va.

You are doubtless right in the assumption that the land was amply supplied with nitrogen gathered by the peas from the atmosphere to meet all the requirements in this respect of the alfalfa crop and that no nitrate was required. The yield of the alfalfa crop is conclusive as to this. On similar land to be seeded now we would instead of the nitrate apply 200 lbs. of acid phosphate per acre. We believe this would give you a heavier yield of alfalfa as the peas will have drawn heavily on the phosphoric acid in the soil and alfalfa needs phosphorus.

ED.

Trucking, Garden and Orchard.

WORK FOR THE MONTH.

The gathering, shipping and storing of the apple crop and the digging, shipping and storing of root crops should this month occupy the attention of the orchardist, trucker and gardener and will almost bring to a close work in this department of rural economy. It is lamentable to see the negligence which is displayed in handling the apple crops. Except amongst the large commercial orchardists the fruit is too often either shaken or knocked off the trees with poles or allowed to drop onto the ground when overripe. In either of these ways it is practically made an unmarketable product at a profitable price and will not keep long when stored for home use. Not content with in this way damaging the fruit and also the trees, the ordinary farmer instead of sorting the fruit and putting each quality and size in a package by itself, and so shipping, or putting away carefully for home use in separate compartments, for use at different periods of the winter according to the keeping qualities, the whole crop is gathered together into a heap and roughly packed into dirty barrels for shipment to the nearby market or stored altogether, good and bad, long keepers and short keepers, in one box or compartment and thus largely lost for use. We are not writing from a theoretical standpoint. We have seen the fruit on our market here come to the merchant in the condition described, nay worse, we have seen barrels opened into which the fruit seemed to have been filled with shovels, good and bad, trash and sticks all mixed together. What can a merchant do with such shipments? He has not time to sort the lot over and make it into presentable grades. He must get it out of the way and so offers it as he receives it, and gets a mere nominal price for the lot, and when freight is paid and charges deducted the remittance to the sender amounts to only a trifle, and he writes denouncing the merchant as a swindler and declares fruit is not worth growing and that he will dig up the orchard. The fault is with the grower and not the merchant. Fruit well grown, carefully gathered by hand and sorted into qualities and sizes and packed in convenient sized clean packages is always in demand on all markets. If shipping to a local nearby market small packages, say from half a bushel to a bushel, put up into nice clean baskets and tastefully arranged and packed will always sell for a price

in advance of the barrel price. They are convenient for small householders and are quickly picked up. If our small orchardists and farmers would cater to this trade we are convinced they would find money in it. The large growers have long since realized the importance of careful picking and packing and judicious marketing and do not need to be advised on this subject. The only point on which we think they need advice is the importance of selecting careful pickers of the fruit. We believe that if more care was exercised in this work we could have more annual instead of bi-ennial crops. The careless picking of the fruit results in much destruction of fruit buds and hence a light set of fruit each alternate year. There appears likely to be a good market for such fruit as we have but the crop this year in this State will only be small. Some orchards have a fair crop but taken as a whole the crop is much below the average.

The digging and shipping and storing of the late Irish potato crop should have attention as fast as the tubers mature. Do not dig before ripe but do not let the crop stay in the ground after it is mature any longer than is absolutely necessary. Dig when the ground is dry and the weather fine so that the tubers will be clean of dirt and dry when stored or shipped. The crop may be stored for home consumption either in an airy frost proof cellar or in heaps or kilns on high dry ground. If stored in a cellar they will only need to be covered with dry straw sufficient to exclude light and keep out any severe frost. If stored in heaps or kilns out of doors they should not be put into too large heaps, say not more than 25 or 50 bushels in a heap and be covered at first only with straw so that the moisture arising from the sweat through which they will pass can escape. A few boards should be put over the straw to exclude rain from the heaps. After they have passed through the sweat and are dry again cover thickly with straw and on this place a good layer of soil beaten hard to exclude the rain. Carefully sort and throw out all diseased or damaged tubers before storing.

In handling sweet potato crops care should be taken to observe the following rules. Do not harvest before ripe. It does not affect the keeping qualities of the tubers whether the vines are killed

by the frost or not. The only test as to whether the crop is ready to harvest is the condition of the tubers. If when a tuber is broken open it dries with a white crust-like formation the crop is ready to dig, but if the broken surface continues to show a watery greenish appearance the crop is not ripe and if taken up then there will be great risk of loss from soft rot. When dug the ground should be dry, the day should be clear and bright and the tubers should be left to dry a few hours in the sun before gathering begins. Run a furrow down each side of the rows with a plow with a rolling coulter. This will cut off the vines and put them out of the way. Then throw out the tubers with a turning plow without the rolling coulter. Gather carefully into boxes or baskets lined with cloth so as not to bruise the tubers. All cut or bruised tubers should be gathered to themselves and be used at once as they are likely to rot. Make the tubers into small piles until cured. Examine to see that the tubers are curing well and not rotting and take out all showing any signs of decay. Keep the piles dry by covering with boards until removed into the house. If put into the house at once after digging a brisk heat and plenty of ventilation should be provided so as to pass them through the drying and sweating quickly. Small crops may be stored in a warm cellar in dry sand or be packed away in dry pine tags. Put away plenty of the small tubers to provide slips for planting.

Carrots, parsnips and salsify will keep safely in the ground where grown unless the winter be very severe. It is always well, however, to pull and store some of these roots in sand in the cellar so that they may be available for the table should the ground become too hard frozen to permit of digging or pulling them.

Celery should now be earthed up a little to compact the plants and get them ready for earthing up closely for blanching next month. Gather the stalks together in your hand or tie a string loosely around them and then draw just sufficient soil to the plants to keep them upright and slightly compact.

Strawberry plants may be set out in dry, light land. Land that has grown Irish potatoes or a cow pea crop is a good place in which to set out strawberries. Don't set the plants too deeply so as to bury the crowns and make them firm in the ground by pressing the soil to the roots with the foot.

THE HOME ORCHARD.

As the time is now fast drawing near when fall planting of fruit trees may be safely made, it may be well to draw attention to some of the varieties which it is advisable to plant for home use and from which any small surplus may be locally marketed. At the outset it may be well to say that whilst there is no section of this State or of the adjoining ones in which apples, pears, peaches and plums will not grow and produce some fruit yet it is equally true that there are large sections of this State and the adjoining ones in which it is not at all advisable to plant orchards for commercial purposes. The proper location for these commercial orchards is in the Piedmont section of this and the adjoining States. There both soil and climate conditions are such that fruit grows to perfection, matures late in the season and keeps well in storage during winter and spring. In the middle and eastern sections of these States the possibility of securing crops year by year is very much less than in the Piedmont sections. In the middle and East we are very apt to have warm sunny weather very early in the year. This stimulates the trees to early blooming and then almost every year we have later severe frosts to come and cut off the bloom or much of it. This makes commercial orcharding too risky a business for these sections, but is no reason whatever why every farmer should not set out a few trees about his home to supply his own table, and if now and again he should make more than he needs the surplus can, if the sorts be choice, be sold in the nearby markets. We have always advocated the fall planting of orchard trees in the South. Climatic conditions are such that the tree planted in the fall in the South is practically a whole year ahead of the spring planted one. The ground is warm in the fall and the roots quickly take hold of it and commence to make growth. This growth continues more or less all through the winter and in the spring the tree is ready to start wood growth at once. Planted in the spring the soil is cold and it takes the tree all the summer to get hold of it and practically little growth of wood is made that year. When planting whether in the fall or spring, do not put manure into the holes or mix fertilizer in the soil. Open good large holes in which the roots can be well spread out. Throw out the top soil on one side and the bottom soil on the other. Then break the bottom of the holes well with a grub hoe or mattock and put in a little of the top soil. Then set



SCENES IN HARRISON'S NURSERIES.

The above photo shows a block of 250,000 budded Elberta Peach trees at Harrison's Nurseries, Berlin, Md. The squad of men in charge of the foreman are cutting the strings of raffia from around the buds. The trees in the background are part of a 150 acre field of 2-year old apple trees. This Nursery consists of about 1,200 acres and millions of trees of every description are grown here yearly. The business announcement of this firm will be found in the Southern Planter regularly throughout the season.

the tree on this after carefully pruning off all broken or bruised roots and part of the top growth and fill in the rest of the top soil on the roots, finishing the filling of the hole and planting of the tree with the bottom soil. If desired a mulch of rough farmyard manure may be spread on the top of the soil around the tree. This will keep the soil moist and free from freezing. As to the varieties to plant for home use, Prof. Phillips the Horticulturist of the Experiment Station, Blacksburg, suggests the following, and in making the suggestions says that he has not based his advice in all cases entirely on local experience but has given due consideration to field observations in other sections of the State and has kept steadily in view two considerations. First. That in planting trees for home use and the retail market only those of choice quality should be selected. Second. Quality should not be secured through sacrifice of hardiness. The farmer's orchard should be composed of varieties which are at once vigorous and hardy and which possess at least good quality.

The apples he recommends for planting are as follows:

Bough, Early Ripe, Summer Rose, Williams, Oldenburgh, Benoni, Jersey Sweet, Maiden Blush,

Mother, Baldwin, Tolman, Peck, Roxbury, Grimes, Bonum, Via, Winesap, Arkansas, (Black Twig), York Imperial, (Johnson's fine winter), Lankford, Albemarle Pippin. The last variety should only be planted in sections known as "pippin regions."

Of pears the following varieties are recommended: Bartlett, Bosc, Clapp, Kieffer, Lawrence, Seckel, Sheldon and Summer Doyenne. He says in connection with this subject of pear planting that all the varieties are more or less subject to "fire blight" but that at the Experiment Station orchards they have succeeded for several years in keeping this trouble in check by annual applications of 10 pounds per tree of a fertilizer mixture composed of one part of muriate of potash and two parts 16 per cent. acid phosphate. This should be supplemented by promptly removing all diseased branches as they are detected.

In peaches he recommends:

Alexander, Early Crawford, Late Crawford, Old Mixon, Free and Smock.

Amongst plums he recommends the following:

American Eagle, Bradshaw, Genii, Grand Duke, Munson, Smith Red, Red June, Satsuma, Wild Goose, Yellow Egg, and Wooten.

Live Stock and Dairy.



SHORTHORN CATTLE.

Editor Southern Planter;

This is the leading breed of cattle in America, both by reason of popularity and general dissemination. The breed derived its name from the shortness of the horn, which is so characteristic of the pure breeds of the present day and generation. These cattle were formerly known as the Durhams, as they originated in one of the counties of England bearing that name. The name is commonly, though improperly used, in some sections yet, but Shorthorn breeders everywhere now regard it as obsolete, and it should be abandoned, for in the writer's observation many persons not thoroughly familiar with the history of the breed still believe that there is a race of cattle known as the Durham in contradistinction to the true Shorthorn, and we not unfrequently receive requests for information as to where representatives of the Durham breed of cattle can be purchased.

The origin of the Shorthorn is not at all certain. Its early history is shrouded in mystery. Sufficient is known, however, to lend color to the belief that it is a peculiarly cosmopolitan breed, and that in the veins of this race of cattle flows the blood possessed by animals brought into England by the Romans, Danes and Normans in their various conquests of that country. As history points out, there was comparatively little interchange of live stock between the continent and Great Britain after the Norman conquest for several centuries, and the peculiarly favorable environment which cattle found in the valley of the river Tees resulted in the various types being modified through the influence of climate, food, treatment and management into a comparatively uniform type of cattle and from this mixture the Durham

breed of cattle was evolved, constituting the ancestors of our modern Shorthorns. It was not surprising that so magnificent a breed of cattle should be developed under the environment mentioned, for there were peculiarly rich pasture lands in the counties of Durham and Yorkshire, and the breed was celebrated even at an early date for the excellence of the carcass produced, the good milking qualities, ease of fattening, and a good admixture of fat and lean.

Shorthorns have quite an extended lineage, it being well established that there were a number of well bred herds of these cattle prior to the middle of the 18th century. Among the famous breeders of that day who probably deserve mention are Millbank, Croft, Stevenson, Maynard and Wetherell. The cattle of the early days were larger than those of the present time and less attention was given to points of symmetry, quality and early maturity. These characteristics so highly prized at the present time have resulted from the keen competition with other breeds and a more discriminating public taste demanding as a result a choicer quality of beef and the necessity of reducing the cost of production in order to make beef growing a profitable enterprise.

The really famous breeders and importers of Shorthorn cattle in the early days are few and far between. Much of the merit of this breed is to be attributed to the excellence of the work done by Colling Bros., who carried on their improvements prior to 1800. Their work was emulated with success by Thomas Bates, who followed their principles closely and developed some of the most famous tribes of Shorthorns, among which may be mentioned the Princess, Duchess and Oxford families. Mr. Bates

died in about 1850, and his efforts were contemporaneous with those of Richard Booth, who founded the famous herd which bears his name, about 1790. Amos Cruikshank, the leading Scotch breeder of Shorthorns at an early date, commenced his work in 1837, and his herd was not dispersed until 1889. To the efforts of these three men are to be attributed the world-wide supremacy which the Shorthorns have achieved as a beef breed. Their efforts, however, were directed along somewhat different lines, and hence the descendants of these several strains have varied considerably in character because of the individual ideal of the breeders. For instance, the Bates Shorthorns were characterized by size, fineness of head, good milking qualities and an excellent carriage. The Booth Shorthorns, though quite as large, had greater heart girth, were possibly shorter in the hindquarter, but possessed of finer handling qualities. They were strong in the head and horn, which detracted from their general appearance to some extent. The Cruikshank cattle, known frequently as the Scotch Shorthorns, were smaller than either the Bates or Booth Shorthorns, but they were peculiarly compact and blocky in build, and their excellent fleshing qualities made them desirable both to the grower and butcher. In fact, it is these excellent characteristics now so firmly established in the Scotch Shorthorns that have given them such a high place in the annals of this famous breed.

Shorthorns have been favorably known in America for more than a century. There is some dispute as to when they were first imported, but it is generally believed that they were brought into Virginia about 1795. From there they were carried into Kentucky and other Western States. Suffice it to say, that their descendants spread rapidly throughout the country and effected a marked improvement on native stocks wherever introduced. Being one of the few improved breeds of high standing and quality, it is not surprising that they should have been imported in large numbers every year for more than a century, and to this fact is due in a large measure the wide popularity and favorable consideration which the breed now enjoys. It is safe to say that but for the rapid introduction and dissemination of the Shorthorn on animal industries would not have developed with anything like the same rapidity with which they did, and so it can be said without fear or favor that the Shorthorns are in a large degree to be credited with the marvellous development of our animal industries during the past century.

The first volume of the English Shorthorn herd

book was published in 1822, and the American Shorthorn herd book in 1846. There are now said to be some 400,000 registered animals in the United States, so that it is not surprising that these cattle should be found as the predominating breed in nearly every State and territory, as well as in the Dominion of Canada.

One of the characteristics of the Shorthorns worthy of special mention is their capacity for adapting themselves to the various vicissitudes of climate, temperature and soil. Wherever the breed has been introduced it has made a favorable impression, holding its own with practically all other breeds, and in many cases proving superior. As a result they have won an enduring popularity. Like all heavy breeds of beef cattle they will do better in arable sections and on comparatively level grazing grounds, and possibly they are not so well adapted to the high temperatures of the Gulf States as the Herefords. At least there is a question in the minds of many as to this point. For the high tablelands and the rolling uplands of the Appalachian region they are at least equal to any of the improved breeds and are the outstanding leaders so far as numbers and popularity are concerned.

The Shorthorns are probably a shade the largest on an average of any of our improved breeds, and in maturing qualities they are equal, and by many regarded as superior to any other breeds. During recent years the Herefords and Angus have in some instances vanquished the Shorthorns in contests for earload lots of cattle, but taken as a whole the breed stands well to the fore and is holding its own successfully against all comers. Shorthorn cattle, properly fed and handled, will mature in from two to two-and-a-half years. This breed of cattle grazes fairly well, though they are not as active rustlers as the Herefords, and will therefore give better results on tame pastures. The breed takes kindly to confinement and being possessed of good appetites and a strong digestion they feed well in the stall. The quality of the meat is practically all that could be desired, that is, so far as the highest type of Shorthorns is concerned. There are many so-called Durhams or Shorthorn grades that are little removed from the scrub, which do not kill well, that is, furnish tender meat in which the fat and lean are well blended, but this is the fault of the breeding, feeding and management of this class of cattle, and should not be attributed to any short coming of the breed as a whole. Unfortunately, this has been sometimes done by persons who are not well acquainted

with the true characteristics of the improved Shorthorn.

As milkers the Shorthorns have deteriorated rapidly in the last few years. This is largely due to the single purpose idea of many beef men that milk and beef are two incompatible qualities, and could not be developed with satisfaction in the same breed. Letting the calves suckle the dam has also done much to reduce the milking qualities for which this breed was justly celebrated. Fortunately for the Shorthorns the error of this practice has now come to be more generally appreciated, and the necessity of developing a breed which will at least possess fair milking qualities and stand the test for beef making is becoming generally appreciated. As a result, milking strains of Shorthorns are again being developed in Great Britain, and the work is being taken up in America, and it is to be hoped that rapid progress will be made along this line, for there is no reason why Shorthorn cows should not give at least a fair supply of milk and retain all their excellence for meat production as well.

As a breed for crossing upon and grading up the native stocks of a community the Shorthorns have enjoyed an enviable reputation, and they are justly entitled to every consideration at the present time as they have been the world-wide improvers, as it were, of our native stocks, having been used successfully throughout America, Australia, and New Zealand. They possess a prepotency little short of marvellous, and have the capacity of transmitting their desirable qualities as to form, size, maturity and fattening propensities to their offspring in a marked degree. Like all breeds they have some weaknesses though they are not outstanding. Certain individuals have been reported as lacking in constitution. This has nearly always resulted from in-and-in breeding and overpampering through an endeavor to develop animals of unexampled size or quality at a given age. These are only temporary injuries, however, which fortunately have not permeated the breed as a whole, and a clear recognition on the part of breeders of the danger from these sources should prevent a repetition of a practice so undesirable.

It would be difficult within the compass of this brief paper to give a standard of excellence for Shorthorns, but a brief summary may be helpful to any who desire to become acquainted with some of the leading characteristics of this breed. First, the form should be compact, with deep hind-quarters and a well balanced development of the animal generally speaking. The head should be small and clean cut,

rather short in the male, and somewhat longer and narrower in the female, and the neck vein should be peculiarly well developed; in ideal specimens of the breed the blending of the shoulder and neck vein being insensible to the eye. The body should be long and deep and rather rectangular in general outline. The fleshy covering of this part of the body should be well developed and the hair soft and fine and pliable. Of course, the udder should be well formed, and the legs short, fine and clean below the knee and hock and well set under the body. The skin should be peculiarly mellow and elastic to the touch and a rich orange color. The hair should be fine and soft and abundant. These points should be examined with care in the purchase of Shorthorns, because they represent some of the leading characteristics of this famous breed. The standard colors are red, white and roan or a mixture of the three. Solid colors are preferred by many breeders at the present time, and the red Shorthorn is apparently growing in public favor.

The value of an improved sire for use on native stocks and for grading up is so generally recognized that emphasis of this point seems unnecessary, and yet there are thousands of comparatively unimproved cattle in this country which our farmers endeavor to feed or or graze as the case may be. In nearly all instances these animals when placed on the market bring the farmer but scant returns for his pains and labor and in many instances he is fortunate if he escapes without serious loss from his live stock operations. It is generally recognized that these conditions are undesirable and that they can be changed in many localities through the introduction of pure-bred sires, which will effect a marked improvement in quality, age of maturity and cost of finishing for market, of a large per cent. of the live stock held on the average farm. This desirable result can be brought about through the introduction of standard sires of the leading beef breeds, and the facts presented in this article show that the Shorthorn should receive careful consideration where this end is in view.

ANDREW M. SOULE, *Dean and Director.*
Virginia Experiment Station.

TEXAS FEVER TICK EXTERMINATION.

Editor Southern Planter,—

Your article on Texas Fever Tick Extermination will no doubt be read with pleasure by many in Southside Va. Cattle raising in most of the counties south of James River would bring large

profits, especially if the breeds now used were crossed on better beef cattle, say, Shorthorns, or Polled Angus. With the present unprofitable farm labor and each year growing worse, it will be necessary to utilize our uncultivated lands especially, and cattle fencing being the cheapest kind to put up, and keep in order, our farmers should give more attention to this matter.

There is no reason why a single pound of Western beef should be eaten in Virginia when we can raise better beef, and do this profitably and yet sell it cheaper than it is now sold on our market. With the quarantine hanging over us at the best time to ship our beef and milch cows, the industry is not only crippled but is nearly prohibited.

Now why should these conditions continue? Simply because our farmers will not be aroused to cooperate with the Bureau of Animal Industry in Washington and with our State authorities at Blacksburg in exterminating the Texas fever cattle tick. The regulations are simple and easy to be complied with and the authorities are anxious to do all they possibly can to relieve us. *This tick must be exterminated. It can be, and with little trouble or expense.* Our State Veterinarian, Dr. J. G. Ferneyhough has been hard at work trying to arouse our people and is anxious to assist them in any way. If any of our farmers want any information or assistance write to him at Blacksburg, Va., and you will find out that it is entirely our fault that the quarantine should continue its burden on us.

Now just one word more, don't say the tick theory is a humbug as many are doing to their own injury. It is a fact beyond question, to anyone who will investigate and the quicker we take hold of the matter in a business way the better for us.

J. HASKINS HOBSON.

Powhatan Co., Va.

A BERKSHIRE OPPORTUNITY.

The Planter for June published the fact that Montview Farms, owned by Congressman Carter Glass, had purchased nine splendid Berkshire brood sows to strengthen its herd, among the number being Lady Premier 10th, one of the largest and handsomest animals in the herd of the noted Western breeder, N. H. Gentry. Lady Premier 10th is sister of Lord Premier, the most famous of American-bred Berkshire boars. That she farrows exceptionally fine pigs is fully attested by the fact that one of her boar pigs, only nine months old, sold on August 30th last for \$400.00 at public auction in Illinois. The

Breeders' Gazette of September 5th, page 427, contains an account of the sale of Berkshires by W. S. Corsa, of Whitehall; and Baron Premier 23rd, out of Lady Premier 10th, the Montview Farms' sow, topped the sale of under-one-year pigs, either sex, being bought by Lester Sturm, of Ionia, Iowa, for \$400.00. Manager Stahl writes The Planter that Montview Farms has two fine boar pigs out of Lady Premier 10th which will be sold for one-fourth the price brought by the boar above referred to. Here is an opportunity for some Southern breeder to buy a herd-header of magnificent breeding for vastly less than animals of kindred type and blood are sold in the West.

FEEDING SOAKED AND UNSOAKED GRAIN TO HOGS.

The question of the condition of grain for hogs is one that affects the rate and economy of gains to a considerable extent. In the test herewith reported, grain soaked for 12 hours was compared with unsoaked grain, with 38 head of hogs for a period of 57 days.

The 38 hogs were divided into two groups of 19 each. The grain fed was corn meal with red dog flour to furnish protein. For the first 37 days equal parts of these two foods were used, and the remainder of the period, two parts of corn meal and one part of red dog were substituted. The feed for group 1 was soaked for 12 hours, or from one feed to the next. The feed for group 2 was fed in the form of slop made at the time of feeding. The hogs were fed all they would clean up at all times during the experiment. The average initial weight of group 1 was 54.78 pounds, and that of group 2, 53.1 pounds.

The feeding began on April 17th and continued until June 13th. During the first period, group 1 made an average gain of 32 pounds, as against 30 pounds for group 2. During the remainder of the feeding period, the gains of group 1 were much in excess of group 2, amounting to 25 to 40 per cent. more. The average daily gain for the whole period with group 1 was 1.28 pounds; and for group 2, .80 pounds; giving an average of .39 of a pound per head per day more for group 1 than for group 2. As a result of this difference group 1 made a profit, where group 2 showed a loss. The corn used was valued at \$20.00 per ton, and the red dog flour at \$23.75.

The cost of 100 pounds of gain at the above value

for grain was \$4.23 with group 1, and \$5.28 with group 2. The cost per 100 pounds of gain with group 1 was \$1.05 less than with group 2. The profit per head with group 1 was 56 cents, making a total profit for the 19 pigs of \$10.64. While with group 2 there was a loss of 14 cents per head, or a loss of \$2.66 for the group.

While these results cover but one test, they are in accord with work done elsewhere, and indicate that soaking feed for growing pigs will often be a desirable practice on Virginia farms.

Experiment Station, Blacksburg, Va.

JOHN R. FAIN, Agriculturist.

MILTON P. JARNAGIN,

Instructor in Animal Husbandry.

RATIONS FOR THE DAIRY COW.

Some rations which have been tested at the Station as well as by practical dairymen and found satisfactory are suggested in the following paragraphs. These rations will of necessity need to be modified to suit local conditions and should be fed in accordance with the individual needs of the dairy cow.

1. Corn silage 40 to 50 pounds, clover hay 5 pounds, timothy hay 5 pounds, wheat bran 3 pounds, corn meal 3 pounds, linseed or cotton seed meal 1 pound.

2. Corn silage 40 to 50 pounds, clover hay 6 pounds, wheat bran 10 pounds, cotton seed meal 2 to 3 pounds.

3. Corn silage 30 to 40 pounds, fodder corn (with ears) 12 to 15 pounds, bran 4 pounds, corn meal 4 pounds, oats 4 pounds.

4. Corn silage 30 pounds, clover hay 6 to 8 pounds, fodder corn (with ears) 6 to 8 pounds, oat or wheat straw 2 pounds, bran 4 pounds, oats 4 pounds, cotton seed meal 1 pound.

5. Corn silage 30 to 40 pounds, cowpea hay 8 to 10 pounds, bran 5 pounds, corn meal 4 pounds, cotton seed meal 1-pound.

6. Corn fodder (with ears) 20 pounds, mixed hay 6 pounds, oats 4 pounds, shorts 4 pounds, cotton seed meal 3 pounds.

7. Timothy or mixed hay 10 pounds, soy beans, clover or cowpea hay 10 pounds, bran 5 pounds, oats 5 pounds, cotton seed meal 2 pounds.

8. Corn silage 30 pounds, alfalfa or soy bean hay 12 to 15 pounds, wheat bran 4 pounds, corn meal 4 pounds, cotton seed meal 2 pounds.

9. Sorghum silage 30 pounds, alfalfa hay 12

to 15 pounds, wheat bran 5 pounds, cotton seed meal 2 pounds.

ANDREW M. SOULE, Director.

Exp. Station, Blacksburg, Va.

THE PREVENTION OF TRANSMISSIBLE DISEASES OF SWINE.

The heavy loss from disease in hogs is largely due to transmissible diseases. The organisms that produce this class of disease usually enter the body in the feed and inspired air. Hence, muddy or dusty yards, especially if over-crowded and filthy, filthy feeding floors, troughs and hog houses are largely responsible for the prevalence of hog cholera, etc. As young hogs are less able to resist these diseases than healthy, mature animals, the necessity of using preventive measures at this season of the year is of double importance.

During the spring and summer wallow holes are formed in the yards and pastures. In case the hogs run in a large lot or pasture during the summer, it is often considered unnecessary to clean and disinfect the small yards and hog houses and they become filthy and dusty. Muddy yards are especially objectionable, as they soon become filthy.

If necessary, the sanitary conditions of the yards can be improved by draining them, keeping the wallow holes filled in and taking the hogs out for a few months every year. The unused lots can be cleaned and put to good use by plowing and sowing them to oats, rape, cow peas, etc.

In no place on the farm are disinfectants so necessary as in the hog houses and yards. Whitewash should be used about the houses at least once during the year. Every two or three weeks the houses, feeding floors, troughs, etc., should be sprayed with a disinfectant. The tar disinfectants are the most convenient to use. These should be used in not less than two per cent. water solutions. An occasional spraying or dipping of the hogs in a one per cent. water solution should be practiced.

Young hogs should not be given crowded quarters. In order to keep them in a healthy condition, a proper diet should be fed. Healthy individuals possess a certain amount of power to resist disease, and this plays no small part in preventing it.

The entrance of disease producing germs from outside sources should be carefully guarded against, especially if hog cholera is present in the neighborhood. The danger of carrying the germs in the mud and filth that may stick to the shoes of a per-

son who has walked through yards where hogs are dying of "cholera" should be recognized. Dogs, horses, cattle, stray hogs and wagons may also act as carriers of disease. The opportunity for crows, buzzards and dogs to distribute disease is not great in sections of the country where the carcasses of the dead hogs are disposed of by burying. Hogs from other herds should be placed in quarantine for three weeks before allowing them to mix with the herd.

Keeping the hogs under the best sanitary conditions possible, and using the necessary precautions in preventing infection from the outside, is the most satisfactory method of avoiding loss from this class of diseases.

R. A. CRAIG, Veterinarian.

Purdue Exp. Station, Ind.

BREED OF SHEEP.

Editor Southern Planter,—

On page 713 (Sep. issue), O. D. Hill asks as to name of breed of sheep formerly common in West Virginia. They were what were called the "Old Mountain Sheep."

They were the sheep evolved by environment out of the original sheep brought over by the colonists and were called "Red Legs" or "White Legs" according to color. They were the best sheep in the world for foundation stock for any part of the Appalachian Mountains.

The red legs were the best—no better mothers are found on the face of the earth.

The best specimens of the white legs look somewhat like Cheviots.

My father, (born in 1813), was of the opinion that the Red Legs were the result of a cross upon the White Legs, which he regarded as the original Mountain Sheep, and the old Southdown.

There is another family of mountain sheep of which I have seen only a few, which have black faces and legs often with a white stripe down front or side of face. I think they are the best of all.

If only we had a Bakewell to take hold of them for a few years the Virginia mountains would have a breed of sheep which would be better adapted to local conditions than any imported breed ever will be.

I think some of the sheep could still be found in the mountains of Nicholas, Webster, Pocahontas, Bath and Highland counties, but they are becoming quite scarce and more is the pity.

I hope some one will resurrect the old Red Legs at least.

I think I found, last year, a preventative of

worms of all kinds, but as I am not now in the sheep raising business, could not try it again this year.

Sheep are not raised here but are fed in bands of from one thousand to fifteen or twenty thousand.

I think that W. McClintic, of Buckeye, W. Va., or H. T. Neil, of Gap Mills, W. Va., might be able to get some of the Mountain Sheep for Mr. Hill.

The Planter is the journal we need even here in the South West.

M. A. DUNLAP.

Kay Co., Oklahoma.

BERKSHIRES AT GLENBURN FARM, ROANOKE, VA.

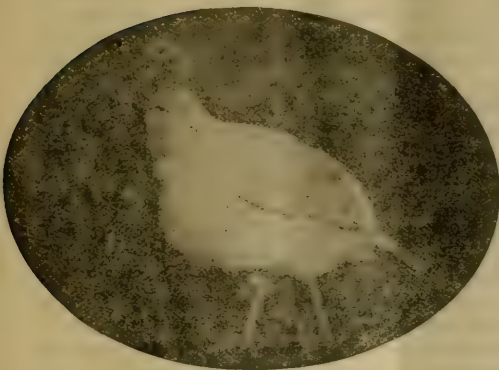
We are in receipt of a letter from D. J. D. Kirk, the owner of this well known herd of Berkshires, informing us that he has recently added to the herd the following finely bred sows at long prices, Wilfordale Belle 3rd, by Lord Premier and out of Combination Duchess 2nd, that won first premium around the circuit in 1903 and Charmers Beauty 2nd by Lord Premier and out of Charmer 65th, one of the greatest sows ever produced, winning first premium at every point of the grand circuit in 1902, finishing at the American Royal as the Grand Champion. These two sows are in pig to the Grand Champion Premier Longfellow. A third sow purchased is Premier Duchess 2nd, a grand-daughter of Premier Longfellow, in pig to Baron Duke 50th, the great son of Lord Premier. Charmers Violet is another fine sow, a beautiful daughter of Premier Longfellow and out of the Great Charmer 65th. With these additions to the already fine herd at Glenburn the owner of that place can safely challenge the world to show better breeding or better individuals.

IMPORTED DORSETS FOR MORVEN PARK, VA.

Mr. Westmoreland Davis advises us that he is adding to his already fine flock of Dorsets by a fresh importation direct from Mr. W. R. Flower, of Dorchester, England. That the newly purchased sheep are a fine lot is evidenced by the following extract from a recent letter from Mr. Flower to Mr. Davis. "I am looking forward to hear of the safe arrival of your sheep and that you are pleased with them. They are a grand lot of ewes, and two of them were in my first prize pen of ewe lambs at the Royal in 1905 and the Ram lamb won first at the Bath and West of England and second at the Royal this year."

The Poultry Yard.

POULTRY NOTES.



I have been asked by several readers of the Planter to say something about turkeys. I do not pose as an expert on turkey raising and will answer in a general way the various questions I can call to mind. 1st. What breed or strain to raise and why. I have raised the common Grey, the Mammoth Bronze, the Bourbon Red and the White Holland and prefer the latter breed for various reasons. They are very domestic, mature young, are medium in size, have extra long meaty breast development, they do not roam and are not liable to be mistaken for wild turkeys by unscrupulous hunters, they can be seen plainly anywhere and always come home to roost. Our hens this year laid their eggs and hatched their broods in the mangers in the barn.

I have tried many ways to raise turkeys. I have kept them in small yards, out of the dew, wet grass, rain etc., and fed them, oat flakes, wheat bread, corn bread, curd, cracked wheat, cracked corn and "fussed" with them until my usual good, "sweet" disposition was turned to fury. With all this care and worry the little poults would just "gin out" like the boys calf. I buried my disappointment and "skill" along with the little lumps of feathers and vowed that the little imps might go to "Hellen Hunt" for their living. This they have done ever since with far better success than under my care. I now see to it that I have good, strong, healthy breeding stock, have them in good condition all winter and keep them as docile as possible. When the hens begin to lay I try to locate the nest. I remove

the turkey eggs every day and substitute a large hen egg for a nest egg. When the hen gets broody I give her a good clutch of eggs, 15 to 18 according to the size of the hen and leave her to watch the temperature, turn and cool the eggs for 28 days. She will usually remain on the nest until about noon the 30th day, then she will take her brood and steal away into some grassy lot and watch for enemies for a few days more, moving about very slowly and hovering her brood much of the time. By the fifth day the little poults will begin to eat bits of grass, flies, ants, small bugs and insects. Early in the morning they will sip the drops of dew from the tips of grass blades and be as pert as little quail. Try to feed them now and see what will be the result. In nearly every instance the mother will call them away from the feed and not allow them to taste it. When they get large enough to take feed she will bring them to the feeding lot and make her wants known. Then feed them bread soaked in sweet milk, curd, corn bread, dry, whole wheat, millet seed, hemp seed, etc., but no corn. When their heads begin to get red feed them anything they will eat and all they will eat, as often as they want it if you can find feed enough to fill them.

The turkey is very much like the Indian. He can be civilized and in a sense domesticated but he loves the open glade for his hunting ground far better than the plowed field and the fruit of the chase far better than white bread and potted ham and embalméd beef.

The kind to raise. All turkeys are good if the shape is right. It does not matter what color the coat is. It may be white or black, blue or red, buff or grey. The coat comes off. I find that a good plump 8 to 10 pound turkey sells better looks better, and is better than the larger carcass. The plump, meaty, medium sized bird is the one that is wanted by the best consumers.

In this issue of the Planter, at the head of these notes is a photo engraving of a good type of a market turkey. The photo was taken in March last when the bird was ten months old. Note the large full breast, the blocky type. This will show what I consider a good type of any breed. This type will plump up very rapidly during October and November if you keep his "mill grinding."

CAL HUSSELMAN.

PROFIT IN RAISING POULTRY.

(This is the conclusion of the article by Mr. E. L. Richardson of Canada, then first part of which appeared in the August issue.)

While it is advisable to keep purebred birds there are many of us who can not afford to make a change at once. The best thing to do is to buy one or two settings of pure-bred eggs every year until the scrubs are gradually replaced by pure-breds. Another good way to improve a flock is by purchasing a good pure-bred male bird and grade up the flock just as hundreds of ranchers are doing who cannot afford to keep pure-bred herds. This system would soon make itself felt in the poultry business just as the introduction of pure-bred sires has greatly improved our horse and cattle stock during the past few years. In any event a change of blood should be made not less frequently than every two years, and it is better to get a new rooster every year if a good one can be had at a reasonable price.

As young hens lay about 25 per cent. more eggs than old hens it is not good business to keep them over the age of two years unless you have not sufficient pullets coming along to take their place. I usually like to allow the hens to lay through two springs and then kill them off when they have stopped laying and before molting. This system also allows sufficient room for young chickens in the hen house. Care should be taken at all times to see that the birds are kept free from vermin, as they will not raise a good crop of these pests and also lay eggs or put on flesh. Twice a year or more frequently if necessary dust the birds with insect powder and sulphur and once a month put a mixture of coal oil and crude carbolic acid (one-half of each) on the roosts and in all crevices. Do this just before the birds go to roost and then shut the hen house up for the night so that the fumes will assist in driving the vermin away.

Now the kind of hens I have recommended you to keep are sitters, and it will be necessary for you to "break up" a good many sitting hens during the spring. The sooner a sitting hen is removed from the nest the easier it will be to "break the hen up." Do not adopt the old method of taking the hen from the nest to the pump, but make a crate about 18 inches square of laths, suspend this crate in the air and put hen in it. Feed and water these sitting hens as usual.

FEEDING FOR EGGS.

From the inquiries which are made by beginners

it is evident the general impression is abroad that only a person with a great deal of experience could feed poultry properly. Such is not the case. Any person with average ability should be able to feed hens so that they will give good returns in eggs. It is true that one might as well expect to make a profit from dairy cows wintered on a straw stack as with poultry kept under ordinary farm conditions. They require suitable care as much as any other live stock on the farm. It is not only necessary to feed birds so they will be in good health, they must be induced to "shell out the eggs" also. As an evidence of the way farm poultry are cared for in many cases I noticed that a farmer once wrote Prof. Dryden of the Utah Experiment Station stating that his hens were dropping off and asking what was to be done. The Professor replied "never mind," it was a way hens had, some preferred death to the treatment they received." Just here I will give you a few of the causes of failure in the poultry business: dampness, unclean quarters, too much cooked food, vermin, filthy water, drafts in roosting quarters, crowding and moldy or musty straw for litter. Now there is not one of these causes that can not be remedied very easily. Hens given only fair treatment will pay good profits and the man who says poultry don't pay is in that statement confessing how badly he looks after the wants of his birds.

I feed my hens wheat as soon as they leave the roosts in the winter and about 7 a. m. in the summer. The same grain or oats is fed at noon. All grain is scattered in a litter to make the birds earn their living, for it is useless to expect eggs if the birds are allowed to gobble up their food in two or three minutes and then jump up on the perches and mope there until they get hungry. They must be made to take plenty of exercise and especially does this apply to the winter months when it is necessary to keep the birds warm. At night just about half an hour before the birds go to roost I give them as much mash (using one-half bran and one-half shorts) as they will eat in 15 minutes and scatter a very small amount of grain in the litter so they can get a little grain if they want it before going to roost. It is not necessary to have shorts to mix in the mash, finely ground oat or barley chop will take its place, but I like to have some bran to mix with the chop or shorts. Use skimmed milk instead of water to mix the mash with if you have plenty. Some people feed the mash in the morning. I much prefer to feed it at night for the reason that the hens then go to roost with their crops full whereas if they are

made to hunt for their night food in the litter it frequently gets dark before they have sufficient. Feeding mash in the morning has the opposite effect to that which we desire, as the hens fill up with mash in a few minutes and then mope around till hunger makes them look for food. In summer it does not make so much difference what time of day the mash is fed. When possible add meat, vegetables or green food to their diet. I prefer to feed these at noon and reduce the noon grain feed the days these other foods are given. See that the birds have fresh clean water always before them and that they get plenty of grit. Now by grit I do not mean little round pebbles as these are absolutely useless for this purpose. The hens must have some sharp, hard substance as broken crockery or crushed stone to act as their teeth, and it is impossible to keep them in good health without it. Be sure that the hens do not get too fat, as they will not lay when in this condition and if they do some of the eggs are liable to be soft shelled. There is, however, not much danger in this connection if the birds have to search for their grain in a six inch litter.—Reliable Poultry Journal.

THE AWAKENING OF THE NEW SOUTH.

Editor Southern Planter:

A great agricultural awakening is sweeping over the South. The farmers are now realizing what live-stock can do and will do for their country in the near future. I will not attempt to give the causes leading to this awakening in Southern agriculture. It is sufficient to say that during nearly all the past, since the South was first settled, those who tilled the soil confined their attention chiefly to the production of cotton, cane, corn and tobacco. Incessant cropping for more than two hundred years has greatly depleted the soil, so that it is not altogether surprising that the tide of immigration has turned in other directions. What is even more to be deplored is the depletion of humus. The heavy winter rains to which the South is often subjected, have washed away the top soil so that the country is more or less disfigured with gullies which interfere with tillage. Is it any wonder that much Southern land under such treatment has become unproductive?

But a new day has dawned and the Southern farmer is waking to the fact that he can far out-do the North in varied production. No Northern State can compare with any of the Southern States in diversity of crops. Of course, the soil was never so fertile naturally as that found along the upper Mississippi

valley, and will always require more skill in handling it to make it yield the greatest profits. Yet, it is quite possible for the Southern farmer to put back into the soil enough humus to increase production, and almost wholly prevent erosion. To this end the farmers are growing more live stock. The raising of live stock necessitates the growing of more pasture and forage crops to be fed on the farms. These crops furnish fertility, and the grass and green crops that may also be grown put the necessary humus into the soil.

The South is fortunate in her wonderful Bermuda grass. The Northern farmer may not like to concede the fact, yet it is true that this grass, when properly set, will furnish more pasture, acre for acre, and make more milk and meat than can be obtained from an equal area of the best blue grass pasture grown in the upper Mississippi basin. With such a resource, the South will some day in the near future meet the North in its favorite lines of production—milk and meat. On good Southern soils, one acre of Bermuda grass will feed a steer 6 months. Under the same conditions this grass will produce 200 lbs. of meat per acre in one season. Even supposing that on ordinary Southern farms it would produce but 100 pounds of meat, the Southern farmer has open to him a mine of wealth.

The Experiment Stations and the agricultural press have both done much to bring about this awakening. The extensive field work is amazing. The problems that are being worked out are of a nature that will benefit the farmers immediately, if they are willing to profit by the results placed before them. The various grain and forage tests are of particular importance. Valuable experiments are also being conducted in growing food for live stock and also fattening them. These are very significant, since they show that meat can be produced as cheaply in the South as in the corn States of the North.

The farmers of the South are not ready to give up the use of commercial fertilizers, but they should stop selling the most valuable fertilizer they have, cotton seed meal. It is also to be hoped that they will give every reasonable attention to the growing of live stock, to enable them to obtain an additional fertilizer practically without cost.

With production turned into these channels, in addition to the immense increased revenue that will result from live stock products, Southern lands will become so much richer and so much improved mechanically and chemically that the planters will be enabled to grow more cotton, cane, corn and tobacco than ever before.

L. H. COOCH.

The Horse.

THE HEAVY-WEIGHT HUNTER.

Editor Southern Planter,—

The breeding of weight carrying sires from selected thoroughbred stock has always been a favorite theory of the writer's, and not only has it been a theory, but he has carried it into practice—but whenever he has suggested it to those interested in hunter breeding, the answer has always been, that it would be impossible, owing to the high price of thoroughbred stock, and the tendency of blood stallions, though themselves selected for weight, to throw back to weedy ancestors. I cannot help thinking that this latter difficulty might be obviated by judicious inbreeding of animals of the required type. Supposing that anyone having the means, and, what is quite as important, judgement and a good eye for a horse, could collect a few heavily built fillies from weighty thoroughbred parents, and mate these back to their own sires, stallions bred on these lines, would be far more likely to make impressive sires, and breed to type, than ordinary chance bred animals. It has been proved by some, that in breeding up to a certain point is only prejudicial, where defects of conformation or constitution exist, and there is no better way of fixing a type, where more or less perfection has already been attained. Objection to this plan might be raised on the score that animals so bred would deteriorate in size. My experience is, that unless the strain to which you are in-breeding is a small one, it has no effect whatever on the size of the produce. The same applies to constitution, provided the parents are robust to begin with.

As touching the high price of thoroughbred stock to begin with. Animals such as I have in view are sometimes to be picked up at a moderate price, on account of being a trifle slow for racing, though quite fast enough for hunters, and carrying too much "lumber" to be worth training, not to mention unfashionable pedigrees. My experiment in a small way proved successful, and I do not see why it should not answer on a larger scale, as almost anything can be done in stock breeding by judicious selection, whole races having originated from a single animal with the required characteristics, notably in the case of Hereford cattle, which are said to have descended from one white-faced bull. With regard to half-bred sires, they would, no doubt, be useful for getting general purpose horses, and be a

deal better than Hackney or cart blood, where riding horses are concerned, provided they were bred from a long line of registered hunters and were free, at least as far as could be traced, from cart horse blood. This latter is most pernicious, the more so, as it occasionally results in good looking "duffers", which fetch high prices from the uninitiated, but they can neither gallop nor stay, and if they fall, will lie like a log, and "iron one out", as the saying is. I know there are a few exceptions to this rule, and can give a case in point. Some years ago, a friend of mine owned one of the best studs of heavy weight hunters, in one of the best hunts in England. Among them, and considered by him his best horse, was a brown gelding, said to be by an Irish cart horse, dam a thoroughbred mare. He was up to 220 lbs., built like a pony, fast, and as clever as a cat. His legs, however, were of the spongy, cart horse order, and they did not stand, having to be fired in his first season, and though patched up for a bit longer, he had to be parted with, while still in his prime, much to his owner's disgust. The advocates of cart blood in hunter breeding, always light on a case of this kind to prove their case, but they are the few exceptions that prove the rule. They forget the scores of useless fuddle headed brutes bred to every one of these chance bred paragons, whose full brothers have probably found their right places between the shafts of express wagons.

W. R. GILBERT.

Alberta, Can.

NOTES.

With the Virginia State Fair and its varied attractions, including a good race programme, in progress during the day, and the Richmond Horse Show on at night, the week of October 9th-13th, will likely be one of the gayest yet witnessed in Richmond, not only for residents of the Capital of our grand old Commonwealth, but for many thousands of out of town visitors who are expected to gather here and join in the festivities. The State Fair management has provided a speed programme with purses of sufficient size to attract good horses in the harness classes, while the same applies to those offered for races on the flat and the steeplechase events as well. The Horse Show will be held in the big amphitheatre at West End Park and under the glare of a myriad of electric lights some of the greatest horses

in the country will parade on the tan bark. Entries to the Horse show closed on September 22nd at midnight, but those to the State Fair races remain open until Tuesday, October 2nd at 11 P. M. Among the well known exhibitors who have entries at the Horse Show are . W. Watson, of Baltimore, owner of one of the greatest stables of harness horses in the country; Richard P. McGrann and Mrs. Edward Moore Robinson, of Pennsylvania; John Spratley, of New York; Joseph Weisenfield, of Baltimore; A Randolph Howard, of Fredericksburg, who has the greatest stable of harness horses in Virginia; John Kerr Branch, of Richmond, with the great mare, Mignonette; David Dunlop, of Petersburg, who has perhaps the largest stable of jumpers in the State; E. B. Sydnor, of Richmond, and a number of others.

Registration of thoroughbred foals is really compulsory, though the fee up to November 1st of the year in which they are foaled amounts to only \$2, but from that date until March 1st of the following year the amount is increased to \$10, after which the sum is increased to \$50 or more and some influence must be brought to bear upon the Jockey Club of New York to obtain the benefits that naturally follow, not the least of which is the eligibility to race upon tracks conducted under official authority. With trotting bred horses, however, the registration of which is under the control of and conducted by the American Trotting Register Association, the recording of pedigrees is not compulsory for racing or otherwise, but the benefit to be derived from such a course is aptly cited by an exchange, which says:

"The crop of foals for 1906 must be nearly all in, there may be a few fall youngsters, but in every well-regulated stock farm the brood mares have all been accounted for and those who have not foals by their side are out of the reckoning. Now is the time to register. It may look a little early, but the auction sales will soon be on and private buyers will be around and if the owner and breeder can show his certificate of registration it will facilitate a sale. Many a man visits a stock farm who is a stranger to the breeder and he cannot be expected to take an owner's word who is too penurious or to careless to register his stock. Every trotting horse breeder should register his foals so that the colts can get their numbers and it is just as important that the fillies should have their duly authenticated pedigrees. If a breeder dies suddenly and he alone knows how the stock was bred, their value is depreciated im-

mensely. It is just as necessary to register stock as to see that the insurance is paid up."

Higginbotham Bros., formerly of Danville, Ky., but now of Fairfax, C. H., Va., where they have recently purchased "Chantilly Farm", are breeding hunters, jumpers and gaited saddle horses. To the latter breed these well known Kentuckians are devoting special attention and from Danville were brought some well bred stallions, brood mares and young things. Chantilly is a fine old estate of close to a thousand acres and the place will be devoted by the Messrs. Higginbotham not only to breeding horses but to fine cattle and other fancy live stock. The horses shipped from Kentucky include two well bred saddle stallions, both by Chester Dare; some brood mares by On Time, Preston, Peavine and Montgomery Chief, and a choice lot of young things by these and other sires of note. One of the most highly prized mares on the place is by Montgomery Chief, who ranks as the champion saddle stallion of America.

W. K. Mathews has sold to A. and J. L. Gathright, of this city, the bay filly Bertha Barker, a thoroughbred daughter of Blitzen dam Faustina, by Eolus, and she is now in the stable of Alexander McDaniel, who will start her at the State Fair race meeting.

The chestnut mare Lileon, by Eon, dam Little Alice, by Lisbon, has been bred to Longlane. The daughter of Eon is owned by Dr. James D. Osborne, of Petersburg, Va.

BROAD ROCK.

Cabbage plants for the early spring crop may be set out towards the end of the month. It is not desirable or advisable to set these out too early or they may make too much growth. What is desired is that they should just get hold of the ground and start to grow before the severe weather and then they can stand the frost. Set out the rows east and west and then set the plants on the south side of the rows so that they will be somewhat protected from the coldest winds. Take care to have the land well prepared before setting out the plants and do not be afraid to use plenty of farm yard manure supplemented with acid phosphate and potash at the rate of from 200 to 500 lbs. of the phosphate and 100 to 150 lbs. of the potash per acre.

Miscellaneous.

VIRGINIA STATE FAIR, RICHMOND, OCTOBER 9th TO 13th.

The authorities in charge of the Fair entries inform us just as we go to press that although the time for making entries in the different classes of live stock does not expire until the 29th of September, already sufficient entries have been made in all the horse, cattle, sheep, hog and poultry classes to warrant them in saying that the exhibit to be made will be the largest and finest ever seen in the South. The racing entries also are large and of the best classes of horses, and ensure racing of the first order of excellence. We are informed by the representative of the Fair, who has been out to the fairs, North and West, that the greatest interest is being taken in our Fair, and that many of the noted breeders of Pennsylvania, Maryland, Ohio, Indiana, and elsewhere will be here with fine exhibits, and that our own State breeders will also be fully represented. The exhibits thus being assured it only remains for our people to show their appreciation of the revival of the Fair by coming in thousands to support the management and thus place the institution on a permanent basis and ensure a continuance of annual exhibits. The people of the city of Richmond are prepared to take care of the crowds who are expected, and those thinking of coming need be under no apprehension as to finding quarters and a good time. We would most urgently beg of the farmers of the State that they give the Fair their patronage and support. The influence for good which enures from a good State Fair to every farmer cannot be overestimated. Wherever there is a well-established, prosperous State Fair, there is prosperity amongst the farmers. Let Virginia get into this class at once. The railroads have made special low rates to Richmond, and the hotels and boarding houses of the city have made most reasonable rates for all visitors. A register of boarding houses can be seen at the Fair offices and locations secured.

SOUTHERN TOBACCO GROWERS.

Editor Southern Planter;

I notice an article in your August issue headed "Food for thought for the Southern tobacco growers," and as food for thought, and very little for the body is what they have been getting for some time out of their tobacco crops, I would be glad for you to give us a little more light on this subject. Your articles

do not say so outright, but they indicate that the tobacco growers should be satisfied with the present prices they are getting, and instead of working for higher prices to make more to the acre at the prices the trust chooses to pay for it. No one but the tobacco growers themselves knew they were not getting half pay for their labor until they began to organize for mutual protection, as nothing was ever said about it by the agricultural papers or the State press; if anything was said about it, the impression was made that farmers were satisfied with the prices they were getting, and the trusts and combines have always made it a point to publish, or get before the public, that the farmers were satisfied with the prices they were getting, when such was not the fact. I have been on the warehouse floor in Danville and South Boston, Va., time and time again at the tobacco sales. I have heard the planter tell the warehouseman that he knew his tobacco sold for less than it was worth, and what would the warehouseman say. "I know it, but John, I got you the limit." What is the limit? Why, the price set by the heads of the tobacco trust in New York city. You say there are independent dealers, then why do they not pay more than the prices set by the trust; they dare not do it; they exist only at the mercy of the trust; for the trust can put up the price until they are loaded up, and then put it down to a figure that will crush them out. Your article speaks of an independent buyer having a letter interpreted from a party, to whom he offered some short leaf at 7 1-2 cent a pound. I suppose this letter was not from the English market or it would have needed no interpretation. I would like to know what market it was from. This tobacco offered at 7 1-2 cts. was reordered or steam dried as all tobacco has to be for the foreign trade; tobacco taken from the warehouse sustains a loss in drying it, and then there is an expense attached to it for hauling, furnishing hogheads or tierces, etc., and of course the dealer wants a profit and should have it. Now what I want to know is what the Farmer got for that tobacco. I know what the farmer would get on our market for a tobacco the dealer could offer for 7 1-2 cents. The customer writes that the tobacco is entirely too high. Now I will simply say this large independent dealer need not go to a foreign market to sell tobacco at 7 1-2 cts. As a dealer said in Danville yesterday he need not go further than Danville, Va., as he would take it all. Will he please publish in your paper how much he

has to sell at that price. This talk about there not being any demand for Virginia and North Carolina tobacco on account of high price is all rot. If this is so, it is very strange that the different governments have their agents here, and have contracted with dealers for large quantities of our tobacco, who are hustling around and paying a long ways over 7 1-2 cents for fillers to fill their orders. I make the assertion that the old bright belt of Virginia and North Carolina produces a type of tobacco that cannot be substituted by any other tobacco, and there is a demand for every pound of it at a remunerative price to the planter; but so long as they dump it on the market at a price set by the trust, they will never get what it is worth. They have got to organize to control the price of the product, just as other business enterprises do. What would you think of a business house standing up in the city of Richmond to sell hardware and agricultural implements, or any other line of goods, and say to the farmers we are going to sell all our goods to the highest bidder at auction. The farmers would agree on a price they would pay for these goods, how long would those business houses stand, or what would an independent dealer think of putting his stock up and selling it at auction? I do not believe there is any class of people, except the farmers, who could exist at all, if they had their product sold under the hammer year after year as the farmer does, and the tobacco growers will never better their condition until they change their method of selling. You publish prices gotten by Canadian farmers at 8 cents. Of course this was for raw tobacco, as farmers do not reorder tobacco. That tobacco reordered or steam dried would be considered worth about 11 cents, taking into account loss and expense; and yet tobacco at 7 1-2 cents is considered high. This looks a little queer to me.

Very truly yours,

H. O. KERNS,

President Bright Tobacco Growers Mutual Protection Association.

Whilst we had no desire to involve ourselves in a controversy with the tobacco growers in reference to the policy they are pursuing, nor have we any quarrel with any man or set of men who may seek in a legitimate way to enhance the selling value of any product of their labor we yet felt impelled to write the article to which our correspondent replies not with the object which our friend covertly insinuates that we thought the price of tobacco sufficiently high and the reward for the labor of producing it ample, but

rather with the idea of conveying a warning to our tobacco growers that there might be danger of overshooting the mark, and as evidence of this, quoted the action of tobacco growers in other sections, who were contemplating increasing their production, because of the profit resulting from such production as they had already made. We also cited the opinion of the European buyer as given in response to an offer of some of our local tobacco that the same was too high priced for him to buy, as further evidence of the need of caution. We believe that if Southern tobacco growers would realize as they ought to do that they only produce a very small part of the tobacco crop of the world, and that even the whole United States and Canada only produce about one-third of the crop of attempting to force values too high with much more discretion than is sometimes exhibited and of the world that they would move in the direction would be more inclined to agree with our view that the true remedy for any want of sufficient profit on the production of the crop is rather in the making of much heavier yields per acre, and if necessary curtailing the acreage in order to accomplish this. It has been conclusively demonstrated more than once that by the proper preparation of the land and the use of a properly compounded fertilizer in conjunction with an abundance of humus in the soil, the average yield of dark tobacco in Virginia of about 800 pounds per acre can be certainly increased to at least 1,500 pounds to the acre, and that this increased product will be of a much higher quality and sell for a much better price than the average yield of this type of tobacco. Where tobacco is produced under these conditions its production will result in more profit per acre than almost any other staple crop of the State. Germany, which produces as much tobacco as Virginia, makes an average of 1,800 pounds to the acre, and other European countries make like yields. All these tobaccos are of a type very similar to our dark type, and largely compete with it, and it is this dark type which is now considered by European buyers as being too high in price for them to purchase freely. They will substitute home grown types, with some of the Eastern tobacco, of which they, like the United States, are large purchasers. In 1905, this country imported over 30,000,000 pounds of tobacco, at a cost of over \$18,000,000, whilst it exported over 334,000,000 pounds, of the value of \$29,000,000. We thus sold more than ten times as much as we bought, but yet only received about one and a half times as much money as we paid. This shows clearly the importance of increasing the quality of our product rather than its quantity. For the last five years there has been a

steady decrease in the quantity of tobacco produced in this country. In 1900 the total production in this country and Canada was 907,000,000 pounds. In 1905 the total production was only 751,000,000 pounds. Coincidentally with this reduction in quantity the consuming power of the country has greatly increased, the population having grown now to nearly 90,000,000 as against 80,000,000 five years ago. These factors have had, and will continue to have, great influence on the price of our tobacco, much more than any action of the trusts or other "bugaboos" which are so constantly hauled out to frighten the producers. Whilst the American Tobacco Company and its allied interests is, no doubt, a great buyer of the different types of tobacco, yet there are still left a large number of independent makers throughout the country, and these are amply sufficient to prevent a "one man market" anywhere. In Richmond alone there are ten large factories engaged in the manufacture of chewing and smoking tobacco. Of these, nine are "Independents." Three of these manufacture exclusively for export, and their output is over 2,000,000 pounds per year. The other seven factories will manufacture over 18,000,000 pounds of tobacco for home consumption this year. In Lynchburg, Danville, Martinsville, and other cities there are also large "independent" concerns. When to these are added the agents and merchants who buy for the "regies" and other independent manufacturers abroad and several of whom buy from 8,000 to 10,000 hogshead each per year, it will, we think, be clearly seen that there is an ample supply of independent buyers and capital to be beyond the domination and control of the "trust."

And now, one word as to the warehouse system of selling, which our correspondent contends is the bane of the producer. This system is in no sense whatever compulsory. Every producer can sell his own crop at home or wherever he pleases, and on whatever terms he pleases. The great majority of the producers avail themselves of the warehouse system of selling because of its manifest conveniences. The seller knows that when the tobacco has been sold on the warehouse floor he will receive payment for it on the day of sale and he will have no further risk or trouble with the tobacco. If he sells privately he must bargain with the buyer first as to the price, next as to the time of delivery, and lastly as to the time of payment. All these have much to do with the price of selling and ultimate profit on production. The manufacturers do not want, and use, except to a very limited extent, new tobacco. It must be seasoned and aged before they can use it. This means that some-

body must hold it at a serious cost, for warehousing, interest and insurance until fit for use. One of the regies is just now seeking to buy tobacco of the 1903 and 1904 crops. Would farmers like to have carried their crops of those years over to this time, even if they had the convenience to do so? The warehouse system of selling gets them out of this difficulty and puts the burden on others of carrying the crop until ready for use and the farmer gets his money at once. Auction selling of products is not confined to tobacco, for in many countries and sections much of the fat stock is sold under the hammer, the system having commended itself to farmers and feeders as being one eminently convenient to them, and resulting on the average in the realization of about the true value of the stock. We believe that over a series of years this will be found also true of the tobacco warehouse sales. If farmers are going to antagonize the men who run the warehouses they are going to have to find much capital and to have either to worry with the details of marketing and delivering the crop all over this country and Europe or pay some one else for doing this. One word in conclusion as to the specific case of the tobacco mentioned in our article. This was not bright tobacco. Had it been, no doubt it could have been sold in Danville and probably many other places for the price asked. It was dark tobacco and was offered in a European market to which the merchant in question has been shipping for years, and where he has sold thousands of packages of our product. It was a market wanting our product, but not wanting it so badly as to give so high a price for it as was asked. Other tobacco could be substituted and will be.

We do not want to see the tobacco planters of the South kill the goose that has laid the golden eggs of the past. That tobacco growing has been profitable is evidenced by the condition of the planters and the prosperity of the section devoted to this crop. In no other section of this State have more banks been opened within the last five years than in the tobacco section. The capital for these banks has almost wholly been subscribed locally. They have large deposits and are conducting a profitable business and anyone travelling through these sections of the State cannot fail to see on every hand evidences of prosperity. If our planters will only keep in mind the possibilities of the tobacco crop, when grown as it ought to be, and not endeavor to make the buyers of the weed pay for the mismanagement of many of the producers, and will also see to it that the tobacco crop is not relied upon to run the farm and provide the support of the stock and the household, but that each

branch of farming is made to pay its own way and contribute to the profit of the whole undertaking, then this prosperity will not only continue but will enhance from year to year notwithstanding the "trust."

Ed.

THE CORN BOLL WORM.

The Boll worm is the worst enemy of the corn with which we have to deal. This insect, scientifically speaking is *Heliothis Armiger* but variously spoken of in different localities as the "Boll Worm", "Ear Worm", "Corn Worm", "Tomato Worm" and "Tobacco Worm".

Every year immense damage is done by the larvæ of this insect upon corn and cotton, sometimes upon tomatoes, tobacco, peas, beans, cowpeas, pumpkins, squash, melons, peppers, okra and in fact several other vegetables, besides many flowering plants such as gladiolus, geraniums and mignonette.

The Boll worm is a very difficult insect with which to deal, as it does not do its greatest damage in the open, but conceals itself in such a way that poisons cannot reach it when applied with the use of the spray pump.

The adult insect, or moth, is generally of an ochre-yellow color with markings of brownish black. The wings when expanded measure from one and one-half to two inches.

The caterpillar, which measures when full grown from one and one-half to two inches, varies in color from pink, running through green, purple, to brown and sometimes almost black. Some have dark stripings, while others are of an almost solid color. Those caterpillars feeding exposed to the sun and light are usually of a darker and brighter color than those from the light, as would be found in the corn ear, the bean pods or tomato.

The Boll worm lives over winter in the pupæ stage in the ground, coming out early in the spring in the form of the adult moth. Soon after emerging the female moth begins laying her eggs upon plants. This is usually done along towards evening or twilight. As the tomato is one of the first plants to appear in the garden, she usually selects this plant upon which to deposit her eggs. This she does upon the stem and in a few days the egg has hatched and the young larva begins feeding upon the stem but as soon as the fruit is set it leaves the stem and bores into the green fruit, destroying it. Sometimes the early crop of tomatoes is entirely destroyed by the larva of the Boll worm.

The Boll worm when full grown goes into the

ground and in a week or two comes out again as the full grown moth. The adult this time attacks the sweet corn if there is any at hand, but if not, it may attack the beans or peas, boring into the pods. One caterpillar may destroy as many as a dozen pods in its life history.

There are as many as five broods in a season, the third and fourth usually feeding upon corn and cotton, preferring corn to cotton. When the moth attacks the corn, it lays its eggs upon the silk where it soon hatches out, the larva working down into the silk to the corn where it continues to eat and grow, eating not only the corn but the silk and husks as well.

On the cotton the egg is laid upon the boll and after hatching the larva bores into the boll almost completely destroying the squares. Use is made of the Boll worm's preference for corn by planting corn between rows of cotton and after the larva has begun to work in the corn, they may be pulled out and destroyed or the fodder may be cut and fed to farm animals, when the worms will in that way be destroyed.

As long as corn remains tender in the field the Boll worm will prefer that, but when it becomes hard the worm will leave the corn for something more palatable, as tobacco or beans.

Sometimes along the latter part of the season the Boll worm will attack tobacco and do very much damage by eating the stalk and by boring into the blossom buds.

The caterpillars complete their feeding period along the latter part of September or the early part of October, when it goes into the ground to pupate, spinning a mahogany colored cocoon about itself. In this state it passes the winter ready to come out in the early spring as soon as the ground begins to warm up.

It is at this time of the year that the fighting of this insect must be done. It has been found that by fall plowing many of these cocoons become exposed to the action of the weather and birds and many are thus destroyed.

Plowing should be done very late in the fall and the ground worked with a harrow at intervals during the winter when the condition of the ground will permit. Fall and winter plowing not only destroys many of the Boll worms, but also other injurious insects as Cut worms, Wire worms and White grubs.

Plowing only a part of an old corn or cotton field will not destroy enough of the pupæ of the Boll worm to pay. The entire field should be plowed and not only that; you should induce your neigh-

bers to plow theirs as the adult insect is capable of flying some distance, yet they prefer to lay their eggs upon plants near at hand.

F. A. BARTLETT.

A MESSAGE TO AMERICAN FARMERS.

One of the greatest men this country has produced, and one who by the sheer force of his intellect and his indomitable perseverance and foresight has indelibly imprinted his name on the annals of the country, James J. Hill, the president of the Great Northern Railway, and the founder and builder of the great Northwestern States, has just delivered to the nation a message and a warning which ought to sink deep into the minds of the people, and especially stir a responsive cord in the hearts of the farmers of the country. In this message Mr. Hill deals with the question of the future of the people of this country. He points out that practically all the free land of the country has already been disposed of, that the coal, iron, and wood is being rapidly exhausted, and that the sole resource which remains, or will shortly remain for the support of the constantly increasing population of the country will be the products of the land, and that with a continuance of the present wasteful, careless, unscientific methods these will only too soon be wholly inadequate to meet the demands. Quoting from this remarkable message; Mr. Hill says, "There are just four sources from which mankind must draw all natural wealth. Of these the sea does not supply more than two or three per cent. of man's food, and it may, therefore, be dropped from calculation as it cannot be made much more largely contributory. The forest, once a rich heritage, is rapidly disappearing. Its product is valuable, not for food, but for shelter and as an accessory in the production of wealth. What is taken from the mine can never be replaced.

Within forty-four years we shall have to meet the wants of more than two hundred million people. In less than twenty years from this moment the United States will have 130,000,000 people. Where are these young people, not of some dim, distant age, but of this very generation now growing to manhood, to be employed and how supported? When the searchlight is thus suddenly turned on we recognize not a mere speculation, but the grim face of that spectre which confronts the unemployed, tramping hateful streets in the hope of food and shelter.

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It is certainly a moderate statement to say that by the middle of the present century when our population shall have reached the 200 million mark, our best and most convenient coal will have been so far consumed that the remainder can only be applied to present uses at an enhanced cost which would probably compel the entire rearrangement of industries and revolutionize the common life.

* * * * *

In the year 1950, so far as our own resources are concerned, we will approach an ironless age. For a population of 200,000,000 people our home supply of iron will have retreated almost to the company of the precious metals. There is no substitute whose production and preparation for practical use is not far more expensive. Not merely our manufacturing industries, but our whole complete industrial life, so intimately built upon cheap iron and coal, will feel the strain and must suffer realignment. The peril is not one of remote geologic time, but of this generation. And where is there a sign of preparation for it?

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Every people is thus reduced in the final appraisal of its estate to reliance upon the soil. This is the sole asset that does not perish, because it contains within itself, if not abused, the possibility of infinite renewal. A self-perpetuating race must rely upon some self-perpetuating means of support. Our one resource, therefore, looking at humanity as something more than the creature of a day, is the productivity of the soil. And since that, too, may be raised to a high power or lowered to the point of disappearing value, it is of the first consequence to consider how the people of the United States have dealt with this, their greatest safeguard and their choicest dower.

This is pre-eminently and primarily an agricultural country. Its soil has been treated largely as have been the forest and mineral resources of the nation. Only because the earth is more long suffering, only because the process of exhaustion is more difficult and occupies a longer period, have we escaped the peril that looms so large in other quarters. The reckless distribution of the land; its division among all the greedy who chose to ask for it; the appropriation of large areas for grazing purposes, have absorbed much of the national heritage.

Only one-half of the land in private ownership is now tilled. That tilled does not produce one-half of what the land might be made to yield, without an atom of loss of its fertility. Yet the waste of our treasure has proceeded so far that the actual value of the

soil for productive purposes has already deteriorated more than it should have done in five centuries of use. There is, except in isolated and individual cases, little approaching intensive agriculture in the United States. There is only the annual skimming of the rich cream, the exhaustion of virgin fertility, the extraction from the earth by the most rapid process of its productive powers, the deterioration of life's sole maintenance. And all this with that army of another hundred million people marching in plain sight toward us, and expecting and demanding that they shall be fed.

* * * * *

Every farm properly cared for should be worth more money for each year of its life. The increase of population and demand, the growth of the cities and markets and the development of diversified farming with density of settlement should assure a large increment. Even where large quantities of new and fertile land are opened, these influences, together with the lowest cost of transportation in the world, should make the growth of values steady.

* * * * *

Under the stress of need, by intelligent cultivation, many of the wheat bearing lands of Great Britain, cropped for a thousand years, are made to bear thirty bushels to the acre. The rich, deep soil of our own country, drawn upon for a few decades, produces about twelve. The same ratio holds good of other cereals and of every product of the field. The Sea Islands, that once raised the most famous cotton staple in the world, are virtually abandoned. The people have neglected the preservation of the soil. They take away all and give nothing back. Thorough fertilization of the land has no place in the general work on the American farm. Average American agriculture means the extraction from nature of the greatest immediate return at the lowest possible outlay of labor or money, with sublime disregard of consequences. Except at scattered experiment stations and in isolated instances there is little done in the United States toward farm economies. Scientific adaptation of soil to product, intelligent rotation of crops, diversification of industry, intensive farming constitute the rare exception and not the rule.

Only two States in the Union show an average total value of farm products in excess of \$30.00 per acre of improved land. The figure for Illinois in 1900 was \$12.48; for North Carolina, \$10.72; for Minnesota, \$8.74. By proper cultivation these returns could easily be doubled and still leave the soil's resources unimpaired.

The doubling of all products of the farm would add to the wealth of this country from \$5,000,000,000 to \$6,000,000,000 every year, according to the crop yield of the season and the range of market prices. Therefore—and this is the focal point of the whole matter—the country is approaching the inevitable advent of a population of 150,000,000 or 200,000,000 within the lifetime of those now grown to man's estate, with a potential food supply that falls as the draft upon it advances. How are these people to be fed

The first step is to realize our dependence upon the cultivation of the soil. To this end all that has been said thus far is contributory. The next will be to concentrate popular interest and invention and hope upon that neglected occupation. We are still clinging to the skirts of a civilization born of great cities. We at this very moment use a slang which calls the stupid man "a farmer."

* * * * *

Agriculture, in the most intelligent meaning of the term, is something almost unknown in the United States. We have a light scratching of the soil and the gathering of all it can be made to yield by the most rapidly exhaustive methods. Except in isolated instances, on small tracts here and there, farmed by people sometimes regarded as cranks, and at some experiment stations, there is no attempt to deal with the soil scientifically, generously or even fairly.

In manufactures we have come to consider small economies so carefully that the difference of a fraction of a cent, the utilization of a by product of something formerly consigned to the scrap heap, makes the difference between profit and bankruptcy. In farming we are satisfied with a small yield at the expense of the most rapid soil deterioration. We are satisfied with a national average annual product of \$11.38 per acre, at the cost of diminishing annual return from the same fields, when we might just as well secure from two to three times that sum. Here is a draft which we may draw upon the future and know that it will not be dishonored. Here is the occupation in which the millions of the future may find a happy and contented home.

Change methods only a little, not too high class intensive farming, but to an agriculture as far advanced as that of those other countries which have made the most progress, and without any addition whatever to the existing cultivated farm areas, the product per acre would be doubled. We should be able, by directing surplus population to the land, and by the adoption of a system of culture in full opera-

tion elsewhere, greatly to increase this minimum present yield of \$5,700,000,000 per annum of farm products. That is, we may add \$10,000,000 or \$15,000,000,000 every year to the national wealth if we so choose. And this is but a beginning.

Great Britain, with a soil and climate far inferior to our own for wheat growing, produces more than double the quantity that we do per acre. In the latter part of the eighteenth century agriculture had reached almost its lowest estate in the United Kingdom. Men who saw then, as we should see now, the paramount importance of its restoration devoted themselves to its advancement. A Board of Agriculture was created in 1793. Sir Humphrey Davy delivered before it in 1812 a series of remarkable lectures on scientific agriculture. Landed proprietors took up the cry and interest was invoked everywhere. New theories were put into practice almost as rapidly as the commons were inclosed, and between 1770 and 1850 there was an immense rise in production, in laborers' wages and in rents. To-day a yield of thirty bushels of wheat per acre is about the average for the country. In Minnesota, with her fresh soil and unrivalled product, an average of fourteen bushels is looked upon with complacency. The average of Great Britain applied to the acreage of this country, that now gives us something more than 600,000,000 bushels of wheat in a fair year, would increase our product to more than 1,500,000,000 bushels.

Within the first fifty years of the nineteenth century agricultural improvement alone doubled the wealth of France. Landed estates sell to-day for from three to four times as much they brought at the time of the Revolution.

The valley of the Loire is one great garden. Every foot of the soil has been studied and devoted to the growing of what will produce the largest return. Although one-third of the area of the country is classified as uncultivable, the tilled portion yields feed enough for one hundred and seventy inhabitants per square mile.

It is to Belgium and the island of Jersey that we must look if we would see the supreme achievement of careful farm industry exercised under conditions not specially favorable. The agriculture of these countries represents a fair average of what the people of any other might do, with equal patience, intelligence and industry. Originally the soil of Belgium, as a whole, was not highly favorable to cultivation. Yet, Belgium produces now, after allowing for all imports of food products, and exclusive of exports of the

same, enough home grown food to supply the wants of 490 inhabitants to the square mile. This is in addition to the large manufacturing industries of the country, and offers a fair model and measure of what might be done under ordinary conditions with the earth by man in any part of the world not cursed by sterility.

These figures, which in reality supply the answer to our problem, convict the American farmer of carelessness and want of knowledge, and the economic and political leaders of the people of unfaithfulness to their trust. To restore and maintain the fertility of the soil, to assure food and occupation for a greater population than may be expected in a long future, we have only to study the experience of older peoples and to follow lessons written plainly in the history of the world's agriculture.

In one district of East Flanders a population of 30,000 peasants obtains its food from 37,000 acres of ground, at the same time raising thousands of beasts, and exporting considerable produce. The farmers of the island of Jersey, by no means a paradise for the agriculturist, manage to obtain an annual agricultural product valued at about two hundred and fifty dollars from each acre of their land. In Germany they have produced thirty tons of potatoes to the acre. The same has been done in Minnesota and might become the rule rather than the exception.

* * * * *

From the review given of actual accomplishment in treatment of the soil, from the promise of this most dependable asset, something may be asserted with confidence of our own future. It can be shown that an average of two persons or more may be supported on every acre of tillable land by the highest form of intensive farming. But dismissing this as unnecessary, it has been shown that a people like those of Belgium to-day, not an Oriental race accustomed to a standard of living and of labor inapplicable to us, not living in virtual serfdom like that of Russia, but an industrious, fairly intelligent and exceedingly comfortable agricultural community, raises from the soil food enough for the needs of 490 persons to the square mile.

(TO BE CONTINUED.)

Cabbage and lettuce seed may be sowed for plants to set out in the spring. Make the beds where the plants can be protected in severe weather in the winter by mats or brush.

See notice on the first page of this number as to the prizes we offer for names of new subscribers.

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J. F. JACKSON,

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B. MORGAN SHEPHERD,
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B. W. RHOADS,

Western Representative

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W. J. CARTER,

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PUBLISHER'S NOTES.

To Advertisers.

Be sure to send in your copy or instructions on or before the 25th of the month for the following month's issue. This is imperative.

A NEAT BINDER.

We have recently received a new supply of Binders for the Southern Planter. This is a very neat

WOOD'S SEEDS. SEED WHEAT.

We can supply all the best and most productive varieties:

LEAP'S PROLIFIC,

DIETZ MEDITERRANEAN,

FULZO-MEDITERRANEAN,

RED WONDER,

CURREL'S PROLIFIC,

FULCASTER,

and all other standard varieties.

Write for WOOD'S CROP SPECIAL, giving present prices.

WOOD'S CROP SPECIAL gives seasonable information about all seeds that can be planted at this season of the year.

Every farmer and gardener should have a copy. Write for it. Mailed free on request.

T. W. WOOD & SONS,

Seed Growers and Merchants.

RICHMOND, VA.

and durable device for saving the entire volume intact. It will prevent soiling and turning up of the corners. Get one now and fasten your copies in it as they are issued and at the end of the year, you will have a valuable reference volume. Price, 30 cents, post-paid.

WITH THE ADVERTISERS.

The Benthall Machine Co. are advertising their Peanut Picker on another page.

The D. F. Foutz Co. resume the advertising of their well and favorably known stock powders in this issue.

Attractive farms on the Eastern Shore of Maryland are offered by Samuel P. Woodcock.

A. L. Rice is advertising his economical paint, which he names "Double-wear."

The Old Dominion Nurseries start the season's advertising with this number.

Another new real estate firm advertising in this issue is Cole & Brown. Look up their advertisement.

The Western Telephone Manufacturing Co. has an important announcement on another page.



WARNINER chain hanging stanchions save cost in feed in one winter, says H. A. Meyer, Syracuse, N. Y. I think them perfect, writes I. B. Calvin, Kewanee, Ind., vice-president state dairy association. Send for booklet containing further information to WALLACE B. CRUMB, South St., Forestville, Ct.

Black Hawk Corn Sheller

Claims to Barrel, Box or Tub. Capacity 8 to 14 bushels per hour. Shells easily, shells rapidly, shells perfectly clean. Extended Hopper and Separator prevent any scattering of corn. Largely of Malleable Iron. Bearings Chilled. Will last a lifetime. So well made that all repairs are FREE. World Fair Medal at Chicago 1893-St. Louis 1904. Beware of imitations. Insist on having the Original and Best. Invented and made only by A. N. Falch, Clarksville, Tenn. Manufacturer of Hand Corn Shellers and Hand Grist Mills exclusively.



BANK OF RICHMOND,

Main and Ninth Streets

CAPITAL AND PROFITS EARNED,

\$1,200,000.

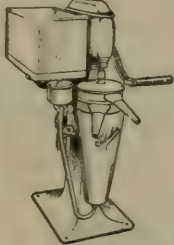
Special attention paid to out-of-town accounts. Correspondence invited.

Three per cent. interest allowed in Savings Department.

Compounded semi-annually.

Because You Need The Money

It's your business and if you don't attend to it, who will? You cannot afford to keep cows for fun. That isn't business, and, furthermore, it isn't necessary. There is money to be made keeping if you go at it right, and besides there is more fun in going at it right than there is in staying wrong.



You need a Tubular Cream Separator because it will make money for you because it saves labor because it saves time because it means all the difference between cow profits and cow losses.

Look into this matter; see what a Tubular will do for you and buy one because you need it.

How would you like our book "Business Pairing" and our catalog B. 590 both free. Write for them.

The Sharples Separator Co.
West Chester, Pa.
Toronto, Can. Chicago, Ill.

A Davis

Cream Separator direct from factory at factory prices, costs half as much as most others. No agents' fees to double prices. Investigate our liberal selling plan and the simple three-piece box machine. Get every drop of cream. Tank 3 feet 7 inches high. Write for money saving catalog No. 128.

Davis Cream Separator Co.
568 North Clinton St., Chicago, Ill.



PATENT YOUR IDEAS

\$100,000 offered for one invention; \$8,500 for another. Book "How to Obtain a Patent" and "What to Invent" sent free. Send rough sketch for free report as to patentability. We advertise your patent for sale at our expense. Chandler & Chandler, Patent Attorneys, 931 E. Street, Washington, D. C.

DEHORNING STOPS LOSS

Dealing with horns is dangerous and a constant menace to persons and other cattle. Remove them quickly and with slight pain with a KEYSTONE DEHORNER. All over in 2 minutes. No harsh method. Leaves a clear, clean cut. Cows give more milk; steers make better beef. Send for free booklet. M. T. Phillips, Box 45, Pomeroy, Pa.



FREE Rural BOX MAIL BOX Send name of party canvassing for petitions for new circuit route. H.P.F.H.S. - get the best box made. H.B.B. - KENTUCKY STAMPING CO., Louisville, Ky.

The Overbrook Farm has a splendid offering of improved Yorkshire Swine and Poland China hogs in another column.

Look up the advertisement of James M. Hobbs in another column. He has a splendid offering of sheep, swine and poultry.

A splendid farm in Northern Virginia is offered by the Atkinson & Ballard Co.

Harrison's Nurseries have an attractive announcement elsewhere in this issue.

Woodside Stock Farm will sell some finely bred Angus Heifers on the last day of the State Fair in Richmond.

The Enterprise Manufacturing Co. of Pa. is advertising its Meat Chopper as usual this season.

Morrill & Morley are advertising their Eclipse Spray Pump as usual.

Montgomery, Ward & Co. would like to send you their Mammoth Catalogue. Look up the advertisement on the third cover page.

The Pittsburg Tubular Steel Whiffletree Co. is advertising their well known line of goods very prominently in this number. Look up their announcement.

Our Want Column is proving a satisfactory medium for barter and exchange among our readers.

THE ORCHARD SOLOIST.

Mocking bird in orchard tree,
Sing a stirring song to me;
Draw the notes out loud and clear,
Louder yet that long I'll hear—
Fitch it to a major key,
Dancing quick'n'ing fantasy;
Mocking bird, make orchard tree
Home of merry minstrelsy.

Mocking bird, in orchard tree,
Sing a soothing song to me;
Muffled be each swelling note,
Softened in your ruffled throat—
Pitch it to a minor key,
Croon a dulcet lullaby;
Mocking bird, make orchard tree
Home of comfort sweet to me.

Mocking bird, in orchard tree,
Sing a soulful song to me;
Let its chords the gamut sweep,
High and low, mystic, deep—
Pitch it to a varied key,
Major, minor, full and free;
Mocking bird, make orchard tree
Inspiration's home for me.

FRANK G. MARTIN,
Pasadena, Cal.

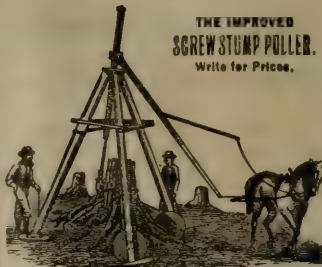
WONDERFUL RESULTS.

Piqua, Ohio, Jan. 31, 1906.
Dr. B. J. Kendall Co., Enosburg Falls, Vt.

Dear Sirs:—Enclosed please find stamp for a "Treatise on the Horse and His Disease." I have and always will be a great user of the Kendall's Spavin Cure. Have had some wonderful results.

Yours truly,
LEO H. WAMMES.

THE IMPROVED
836 STUMP PULLER.
Write for Prices.



Chamberlin M'g Co., Olean, N. Y., U. S. A.

HERCULES Stump Puller



Clears an acre of heavy timber land each day. Clears all stumps in a circle of 150 feet without moving or changing machine. Strongest, most rapid working and best made.

HERCULES MFG. CO.,
413 17th St., Centerville, Iowa.

MONARCH STUMP PULLER



Will pull stumps 7 feet in diameter. Guaranteed for 12 months and a strain of 250,000 pounds. Catalogue and discounts, address MONARCH GRUBBER CO. Lone Tree, Iowa.

Monarch Stump Puller.

Farmers having stumps to pull or land to clear, had better investigate the Monarch before buying.

5 sizes from \$25 up. We ship on approval and guarantee satisfaction before we want your money. 8 years experience in pulling stumps. Write for catalogue and prices. JOS. W. RITCHIE, State Agent, R. F. D. 29, Grottoes, Va.

Well Drills

For Horse, Steam or Gasoline Power

Well Augers

For Horse Power

Address

LOOMIS MACHINE CO.

TIFFIN, OHIO



MCCORMICK

Husker and Shredder

(4 roll) in good condition, for sale cheap. Apply to SEAY-DILLARD HARDWARE CO., Blackstone, Va.

Always mention the Southern Planter or when writing advertisers.

9-95 Buys This Large Handsome Nickel Trimmed Steel Range

without warming closet or reservoir. With high warming closet, porcelain lined reservoir, just as shown in cut, \$13.95; large, square oven, six cooking holes, body made of cold rolled steel. Dripless grate; burns wood or coal. Handsome nickel trimmings, highly polished.

OUR TERMS are the most liberal ever made. You can pay after you receive the range. You can take it into your home, use it 30 days. If you don't find it exactly as represented, the biggest bargain you ever saw, equal to goods retailed for double our price, return it to us. We will pay freight both ways.

Write Today for our beautifully illustrated **Stove Catalogue No. 1063**, a postal card will do, 75 styles to select from. Don't buy until you get it. **MARVIN SMITH CO., CHICAGO, ILL.**

GOOD PAINT AS AN ASSET.

Among all the routine expenses of the property owner, there is none that yields more satisfactory returns than good paint. In this respect it is like fire insurance, but with a difference. Fire is accidental and when an insured building burns, the insurance company pays a good proportion of the cost of rebuilding. But when a building suffers for the lack of paint—as it must suffer if painting is neglected—the owner bears the entire loss. It is the height of improvidence, therefore, to allow a property to deteriorate for the lack of a coat of good paint in season; for paint is not only a form of insurance that pays its own premiums, but in the selling value it adds to a building—it is an actual cash asset.

The best time to paint is in the spring or the fall, when the weather is settled, and paint applied at the proper time will wear better and protect better than if applied at an unfavorable season.

For ordinary use, there is nothing superior to the better grades of ready-mixed paints put on the market by responsible manufacturers. They can be bought anywhere in convenient quantities, and of any desired tint or shade, from local dealers. A little inquiry regarding the local record of any such paint offered for sale will usually enable the consumer to judge of its quality.

So much for the selection of the paint: its application should be left to a good painter, who will get better results, with less material, from any form of paint than the unskilled novice can obtain.

D. P.

"POCAHONTAS."

Romantic Drama Founded on the Life of the Beautiful Indian Princess.

"Pocahontas" is the name of a new romantic drama written by George Frederick Vieth of Norfolk, which is shortly to be produced throughout the country, after which it will settle down at the Jamestown Exposition, which is to be held just outside of Norfolk, Virginia, next year. At the Jamestown Exposition, the new drama will be produced in a most elaborate manner, and as it is based on a story of which the world never tires, it is bound to prove a lasting attraction.

The scenery for the play will be specially painted, the artist visiting James town to secure sketches of the original scenes. The costumes will be historically correct in every essential detail and will be very gorgeous, after the manner of the period.

The playwright has made a daring innovation in the introduction of the character of Shakespeare on the stage. The Bard of Avon appears in the first act where, in a fine oration, he wishes God sped to the colonists as they em



WHAT DO YOU SAY?
Several hundred thousand farmers say that the best investment they ever made was when they bought an

Electric Handy Wagon

Low wheels, wide tires; easy work. Light draft. We'll sell you a set of the best steel wheels made for your old wagon. Spoke united with hub, guaranteed not to break nor work loose. Send for our catalogue and save money.

ELECTRIC WHEEL CO., Box 146, Quincy, Ill.



RUNABOUTS

are ideal pleasure vehicles, especially for use in the open Fall months in this section. Light, comfortable, stylish. Sold on terms and conditions that will make you purchase one on sight. All kinds of vehicles including Virginia Farm wagons. Come and see us. **RICHMOND BUGGY & WAGON CO., Richmond, Va.**

\$42.50 WORTH \$65

Many Special Points of merit.



Build to your order, and shipped on 30 days' free trial with written guarantee for two years.

Money returned if not satisfied. Buy direct at factory prices. Write today for **FREE** catalog of vehicles and harness, 250 styles. **832 Vandalla Ave. Columbia Mfg. & Supply Co. CINCINNATI, O.**

\$35.50 30 Day Test.



No Money in Advance

"Anderton" Vehicles and Harness direct from factory at lowest factory prices.

A REAL FREE TRIAL

with no deposit, no fees of any kind. A two years approval test, with a \$25.00 bank deposit to insure your getting your money back, if not satisfied. You can try an "Anderton" with your money in your pocket. Write for free 110-page illustrated catalog No. 21. It fully explains our offer.

The Anderton Mfg. Co., 42 Third St., Cincinnati, O.

Save Your Building Money

Make your own concrete building blocks. Stronger than brick or stone, cheaper than wood, price reasonable for high grade success Concrete Block Machine. Catalog and price list on application. **HERCULES MFG. CO., Dept. A-102, Centerville, Iowa.**

GRAIN and FERTILIZER DRILL

The **YORK FORCE FEED DRILL** combines lightness with strength. Most complete drill made. No complex gearing to get out of order. Boxes are close to ground.

Fully Guaranteed. Easily regulates quantity of seed or fertilizer, and sows with regularity. Weight, only 700 lbs.

Agents Wanted. Write for Catalogue. **THE HENCH & DROMGOLD CO., Mrs. York, Pa.**



To every reader of the Southern PLANTER we will send a sample 33 1/2 H. P. gasoline engine at one half price.

This offer is only good for a limited time.

C. H. A. DISSINGER & BRO., Wrightsville Pa.



\$85

Will buy our 2 H. P. 4 cycle Engine. Other sizes in proportion. Buy direct and save dealer's profit. Vertical, Horizontal and Portable Gasoline Engines. Pumping outfit a specialty. Write for free circulars.

BAUROTH BROS.

Springfield O., 50-56 Fisher St. S.

ENGINES FOR SALE.

10 Horse traction \$250, 12 Horse traction \$300, 16 Horse traction \$400, double sawmill \$125, 10 Horse portable engine on wheels \$150, 6 Horse vertical boiler and engine \$100, 5 Horse vertical boiler and engine new, \$135, No. 3 Bowsher corn mill \$25, new boilers tanks and plate work of every description made to order, second-hand boilers and engines carried in stock from 3 to 100 horse. **D. L. CASEY MACHINE CO., Springfield Ohio.**

FARM TELEPHONES

How to put them up—what they cost—why they save you money—all information and valuable book free write to **J. Arner & Sons, 934 W. Water St., Milwaukee, Wis.**



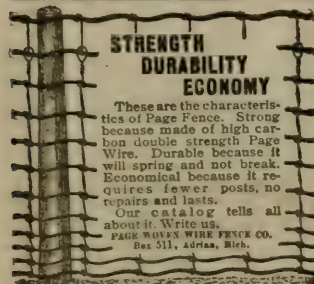
MANLOVE SELF-OPENING GATE

ALWAYS IN ORDER.

This gate can be placed at any driveway entrance, attached to ordinary posts and soon pays for itself in time saved.

It is opened or closed by any vehicle without assistance or stopping. By its use run-away accidents are avoided. Machinery is all above ground and so simple it never gets out of order.

It adds to the beauty, value, safety and convenience of any home. Address MANLOVE GATE CO., 272 E. Huron Street, Chicago, Ill.



STRENGTH DURABILITY ECONOMY

These are the characteristics of Page Fence. Strong because made of high carbon double strength Page Wire. Durable because it will spring and not break. Economical because it requires fewer posts, no repairs and lasts.

Our catalog tells all about it. Write us. PAGE WOVEN WIRE FENCE CO., Box 511, Adrian, Mich.



COILED SPRING FENCE

Closely woven. Can not sag. Every wire and every twist is a brace to all other wire, and twists full height of the fence. Horse-high. Built strong. Pile-tight. Every rod guaranteed.

30 DAYS FREE TRIAL after return direct to farmer, freight prepaid, at lowest factory price.

Our Catalogue tells how wire is made—how it is galvanized—why some is good and some is bad. Its benefits of fence facts. You should have this information. Write us today. We'll prove it.

KITSELMAN BROS.,
Box 14, MUNCIE, INDIANA.

Save The Posts

Old field pine made to last longer than cedar or locust by creosoting with dead oil of coal tar. The creosoting of lumber makes it practically indestructible, stops all rot and is absolute death to all insects. Write for prices to the NORFOLK CREOSOTING CO., Norfolk, Va.



LAWN FENCE

Many designs. Cheap as wood. In page Catalogue free. Special Prices to Grocers and Dealers. Address COILED SPRING FENCE CO., Box Q, Winchester, Ind.

bark from Blackwall, England, to plant the first permanent English speaking colony on American soil.

The play contains such episodes as the quarrel between Ratcliffe, one of the conspirators, and Captain John Smith, and the trial of Kendall for treason, and his sentence of death.

The saving of the life of Captain John Smith by Pocahontas in the third act is a thrilling piece of realism, and the scene at the court of King James in the next act, when Pocahontas is presented to his majesty, is said to be of surpassing beauty.

Another beautiful and interesting scene is the crowning of Powhatan, the proud father of Pocahontas, who declined to kneel, declaring that he "would kneel to no man, not even to a king."

The play ends with the arrival of the cargo of maids, who came from England to be the wives of the colonists, the price for each maid being set at 120 pounds of tobacco. The finale takes the form of a magnificent ballet, its theme covering a span of three centuries and typifying scenes of the seventeenth and twentieth centuries.

Mr. Vielt, the author, has introduced three distinct features into his play: the introduction of Shakespeare, the first trial by jury on American soil and the first marriage of white persons on this continent; namely, the ceremony whereby John Laydon and Anne Burrass were made one in the rude but picturesque church at Jamestown Island.

It is proposed to introduce real Indians into the play for the group parts and the war dances, and for this purpose the Secretary of the Interior will be appealed to in order to secure the red men from a government reservation.

It is announced that "Pocahontas" will have its initial performance at an early date.

TO MAKE HARNESS LAST LONGER

A little economy, which sometimes means a great many dollars to a man, is the proper care of harness, carriage tops, etc. Leather in daily use, exposed as it is to sun and wind, soon becomes dry, hard, inelastic, and unable to stand strain. Then, very likely at the most unfortunate moment, a break occurs, and precious time and money are lost. All this is easily prevented by a little forethought and care on the part of the owner. Every one owning horses should be supplied with a good leather preservative, and a good axle oil. These two things are necessary to the largest economical use of a working outfit, or a pleasure equipage.

Observation has shown that no oil penetrates leather so deeply, and resists the drying effect of sun and wind so well as Eureka Harness Oil.

Nearfoot and some other inferior oils sometimes used, easily become

BEATS THE Grindstone

TEN TIMES OVER

No measure, no drawing, no temper, if you use the

Practical Aluminum Grinder

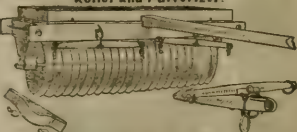
with wheel revolving 3,000 times a minute. Far superior to emery or stone. Grinds any tool, knife to sickle.

Different sizes. Foot power attachment. Write for circular of particulars. Good agents wanted. Address, ROYAL MFG. CO., 35 E. Walnut St., Lancaster, Pa.



The Cambridge. Corrugated Land

Roller and Pulverizer.



THE BEST IN THE WORLD.

Used by the State Test Farm, Va. Ag'l College Sweet Briar Institute, Miller M. L. School, and some of the best farmers in the State. Address, R. F. HARRIS & CO., Charlottesville, Va.



Fast Hay Baling

by using the machine that's easy to feed, the large feed hole.

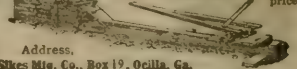
ELI BALING PRESS

The only machine for long course or matted hay. Makes perfectly Alfalfa, Pennings, Johnson and other grasses. Power increases as hay becomes denser. Large charges, perfect folds, built signal, 4 side tension spring. Can handle wet or dry hay. Write for illustrated catalogue, 6 sizes and styles.

Collins Plow Co., Quincy, Ill., 1185 Hampshire St.

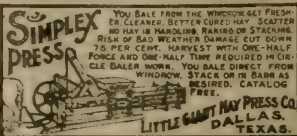
RED RIPPER HAY PRESS

Combines the power, speed, simplicity, durability, convenience and cheapness. Full circle, double stack. This press which regulates weighted loose hay uniformly. Write today for book, a showing low farmers' prices.



Address,

Sikes Mfg. Co., Box 19, Ocala, Ga.



SIMPLEX PRESS

YOU BALE FROM THE WINDOW OR FRESH TO CLEANER. SETTING UP EASY. SCATTERED NO HAY IS WASTED. HARROW OR STAKING. RISK OF BAD WEATHER DAMAGE CUT DOWN 75 PER CENT. HARVEST WITH ONE-HALF FORCE AND ONE-HALF TIME REQUIRED IN SINGLE BALER WORK. YOU BALE DIRECT FROM WINDOW. STACK OR IN BARN AS REQUIRED. CATALOGUE FREE.

LITTLE GRANT HAY PRESS CO., DALLAS, TEXAS.

How to Make Money in Hay. Seed for Dederick's Book on Baling Presses. Tells how to make most profit baling Hay, Straw, Husks, Podder, etc. FREE on application P. K. DEDERICK'S SONS, Albany, N.Y.

Cutaway Tools For Large Hay Crops

CLARK'S REVERSIBLE



BUSH AND BOG FLOW
cuts a track 5 ft. wide,
1 ft. deep. Will plow
new cut forest. His
double action Cutaway
Harrow keeps land
true, moves 1800 tons

of earth, cuts 30 acres per day.



NO MORE USE FOR FLOW
His Key-Disk Plow
cuts a furrow 5 to 10 in
deep, 14 in. wide. All
Clark's machines will kill
wild grass, wild mustard,
charlock, hardhack, sun-
flower, milk weed, this

tile or any foul plant. Send for circulars to the
CUTAWAY HARROW CO., HIGGANUM, CONN.

Buy This Way:

**Try First. Return
If Not Satisfied**

Price lower this year than ever before
and we pay freight. We are not afraid be-
cause for over 40 years

Quaker City Mills



have led all others. Ball-bearing,
light running, last long, grind ear
corn and all grains, singly or mixed.
Quaker Cities are made in 8 sizes,
1 to 20 H. P. Everybody's mill. In-
vestigate before buying. Catalog free.

The A. W. Straub Co., 2727 Filbert St., Phila., Pa.
41-49 S. Canal St., Chicago, Ill.



DO YOU PAY TOLL

to have your grain ground? You
can save this by using the old
time favorite

STAR GRINDER

High grade but low cost. Your
choice of Simple Sweep, Geared
Sweep or Belt Drive. All good.
Postal card brings book de-
scribing all fully.

The Star Mfg. Co., 68 Depot St., New Lexington, O.



BY ONE MAN, with the FOLDING SAWING MACHINE. It
saws down trees. Folds like a pocket knife. Saws any kind of
timber in any kind of ground. One man can saw more timber
with it than 2 men in any other way, and do it easier. Send for
FREE illustrated catalog, showing latest IMPROVEMENTS
and testimonials from thousands. First class device. **AMERICAN
FOLDING SAWING MACHINE CO.,**
169-194 E. Harrison Street, Chicago, Illinois.

rancid, or, because of containing acid,
hurt the leather. Stable men and others
posted on the subject, invariably
use Eureka Harness Oil. When harness
is given an occasional dressing of
this oil, and wagon spindles greased
with Boston Coach Oil, a very large re-
duction is made in the necessary re-
pair bills. Boston Coach Oil, by the
way, is very much superior to Castor
Oil. It has splendid lasting qualities,
will not gum or corrode, and is more
economical in every way.

People who are after economy in
stable management will do well to ask
for these oils.

Among sheep owners throughout the
world, it is now generally known that
William Cooper & Nephews, manufac-
turers of the well known Cooper Sheep
Dip, have reached a very high position
as sheep breeders, and their success
at the recent Royal Show of England
certainly places them in a foremost
position, their Shropshire sheep cap-
turing on the occasion six first premi-
ums, practically sweeping every thing
before them and establishing a prize-
winning record never approached by
any other exhibitor.

From the Cooper flocks last year
sheep were shipped to every part of
the world to the value of nearly half
a million dollars.

STRAIGHTFORWARDNESS DID IT.

It is a time of prevailing humbug—
no doubt about it—and men are won-
dering whether it is impossible to do
a successful business without any
humbug.

Here is a first-rate answer.

Macbeth, the lamp-chimney maker of
Pittsburgh, beginning small about
twenty-five years ago, has been the
best in his line in the whole world for
many years, has been the largest for
several years, and is now extending
his trade abroad. His ways are
marked by perfect straightforward-
ness in advertising and dealing.

BRASS.

If a man has a cheek of brass, per-
haps he can afford to use any old soap
for shaving. Most men, however,
must steer clear of ordinary soaps, if
they wish to shave with ease and safe-
ty. Common soap is too harsh for the
delicate skin of a man's face. It yields
a thin, miserable lather, the razor
pulls, and the skin is left sore and
rough. Williams' Shaving Soap is
made specially for shaving tender fac-
es, and yields a rich, lasting lather,
and leaves the skin soft and velvety.
As per their offer in another column,
the J. B. Williams Co., Glastonbury,
Conn., will send you a free sample for
a two cent stamp. "Be fair to your
face."



THE BEST WASHING MACHINE ON EARTH

Madison scientific principle, it saves TIME
as well as clothes.

Made by the largest wooden ware man-
ufacturers in the world, who can afford to
make the best Washers, CHEAPER THAN
OTHERS.

Send for illustrated catalogue, it will
please you

Send for the machine itself, it will satis-
fy you.

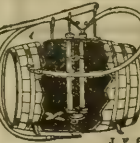
MADE AND GUARANTEED BY

The Richmond Cedar Works,
Richmond, Va.



HEEBNER'S FEED CUTTERS.

Feed all your fodder. By using Heebner's cutters with
shredder attachment the whole of the nutritious stock is ex-
hausted and shredded, and rendered soft. No waste
Animals eat willingly and thrive. Shovel attachment cuts. The
model carries cutter. As a make Trade Paper, letter 1 sent Little
Cost and free. Heebner, 25 Broad St., Philadelphia, Pa.



Defender Sprayer

All brass, easiest work-
ing, most powerful, auto-
matic mixer, expansion
valves, double strainer.
Catalogue of Pumps and
Treatise on Spraying free.

J. P. Gaylord, Box 82 Catonsville, Md.

Powerful—Durable—Economic TELEPHONE

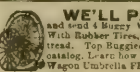
Write for free book explaining
cost and how to organize, build
and operate telephone systems
among your neighbors. CADIZ
ELECTRIC CO., 58 C. C.
Bldg., Cadiz, O.



Wholesale Prices

on 350 styles of buggies,
carriages and harnesses.
Write for Free Catalog
and save money.
Thirty days free trial.
Guaranteed two years.

COLUMBIA MFG. & SUPPLY CO.
832 Vandalla Avenue, Cincinnati, Ohio.



WE'LL PAY THE FREIGHT.

and send a Heavy Wheel, Steel Tire or \$1.75.
With Rubber Tires, \$18.50. 1 safe wheels \$4 to 6 in.
tread. Tin Roosters, \$2.50. 11 Hens \$4.25. Write for
catalog. Learn how to buy direct. Repair Wheels \$1.00
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Perhaps some one of our readers has a belated crop of corn and would like a new way to put it up. This is being used by a number of my friends and said to be perfect. I have not tried it: Cut the corn off and measure ten cups, add half a cup of sugar, and a cup of salt, boil until done, and fill the cans heaping full. Screw on the tops and keep in dark, cool place.

Another Tartaric Acid Receipt.

A friend told me yesterday that she measured twelve quarts of the corn and added one ounce of tartaric acid to it, boiled only ten minutes and canned in glass jars, and that she never lost a jar. This is much less tartaric acid than I have ever used, and she is an experienced housekeeper and I feel sure anything she recommends is good.

Green Tomato Pickle.

One peck of green tomatoes, one dozen white onions, slice and sprinkle with salt, a little turmeric and pinch of powdered alum. Do this in the afternoon and let it stand until morning, then drain off all the water. Add four green peppers, two red peppers, chopped and the seed taken out, one fourth of a pound of white mustard seed, three ounces of celery seed, two ounces of black mustard seed, one tablespoonful of whole cloves, two tablespoons of mace, two tablespoons of allspice, three pounds of brown sugar. Cover with good vinegar and cook slowly until the tomatoes are clear. Just before you take it off the fire, add half cup of grated horseradish, a stick of cinnamon, a large cup of salad oil: stir every little while to prevent burning and after you take it off pour into the kettle a quart of cold vinegar.

Chow Chow.

Half peck of green tomatoes peeled and sliced, one large head of cabbage, sliced, one quart of onions chopped, one dozen green peppers, with the seeds removed. Mix three cups of salt through these and let them stand all night. In the morning, wash thoroughly with cold water and squeeze dry, add half dozen cucumber pickles cut up; put in the kettle with one gallon of vinegar, one cup of mustard, two tablespoons of turmeric, one ounce of stick cinnamon, half ounce of cloves, one ounce of allspice two ounces of celery seed, and two pounds of sugar, and a cup of white mustard seed. Boil thirty-five minutes.

Fruit Punch.

One dozen oranges, half dozen bananas, sliced, half dozen lemons, one large pineapple, cut on a slaw cutter, (Soak the pineapple in hot water for an hour before needed and you will have no difficulty in peeling it), one can of maraschino cherries, and, if

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No. 108.—136 acres, 60 acres cleared, balance in good timber; some very heavy white oak. This land is all good and smooth, a little rolling. Watered by springs and one well. Located on the Washington and Winchester Pike, 23 Miles from Washington, in Loudoun county. One-half mile to churches, schools, mill and store; mail delivered at the gate. Dwelling is a 5 room house in good repair. Large stable, shop, and other small out-buildings. Good young orchard in bearing, with all kinds of fruit. This farm is situated 6 miles from the railroad, but the market wagons pass every day, and afford a good market at the door for all kinds of farm produce. Price, \$1,800.

No. 109.—140 acres, 25 acres in good timber, balance cleared. Situated in Loudoun county, 3 miles from station, 6 miles from Leesburg. Land is a fine mahogany soil, adapted to all kinds of grain and grasses, in a high state of cultivation; 4 acres of apples, peaches, pears, plum and cherry. Land is rolling, with 25 acres of fine bottom land; it is watered by running streams, spring and well. The dwelling is a nice 7 room house, with nice lawn, corn house, granary, wagon shed, poultry house, all in good repair, 2 good barns, one 34x6 and the other 35x40. This is a handsome farm and very productive. Price, \$4,250.

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Equal parts of apples, celery and walnuts, or pecans; cut the apples and celery into small pieces and chop the nuts. Mix well and keep on ice until just before serving. Dressing for this salad is: One half pint of vinegar, two teaspoons of salt, two tablespoons of sugar, one tablespoon of mustard, one half teacup of melted butter, the yolks of four eggs. Beat the eggs very light; add to them the seasoning, and stir while putting in the seasoning, move the vinegar from the fire and stir while putting in the seasoning, then return it to the fire and cook until it begins to thicken. Let it get cold and thin out with a cup of very rich cream.

White Cake.

The whites of eight eggs, beaten stiff, three cups of flour, sifted twice, with two teaspoons of baking powder, two cups of sugar, one cup of milk, three fourths of a cup of butter, season with bitter almond, bake in layers and use.

Chocolate Filling.

One and a half cups of white sugar, the same of brown sugar, ten tablespoons of cream, one large tablespoon of butter, ten tablespoons of grated chocolate; mix everything but the butter in the pan and let it boil a few minutes. When it will cream in the sauce, take it off and add the butter, beat hard until it is thick enough to put between the layers.

Angel's Food.

The whites of eleven eggs beaten until perfectly stiff, one and a half cups of granulated sugar, one cup of flour, one teaspoon of bitter almond, one teaspoon of cream tartar, put the cream tartar into the flour and sift it six times. Sift the sugar and beat it into the whites, then very slowly add the flour, stirring all the time, lastly the flavoring. Bake in a slow oven three quarters of an hour. Turn the pan upside down and throw a wet towel over it and the cake will fall out. CARAVEN.

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The pioneer of agricultural science in the South was Edmund Ruffin, to whose memory a monument is well merited from the farmers of the South, he being the first person in this section to apply the principles of chemistry to the cultivation of the soil. He was born in 1790, in Prince George Co., Va., and consequently grew up at a time when agricultural science was in its infancy even in Europe, and almost non-existent in this country. He commenced to cultivate his estate early in life, but he was soon struck by the fact that "the slip-shop methods in vogue around him were wretched in execution and erroneous in system."

He set to work diligently to improve these methods, by reading and study, and by observing the indications of the soil and testing its qualities. The first work devoted to Virginia agriculture was written by Col. John Taylor, of that State, and obtained such great popularity that it ran through six editions—a very unusual thing in those days. This book proved a great help and stimulus to Mr. Ruffin. Later, he read Sir Humphrey Davy's "Lectures on Agricultural Chemistry," and something that the latter said about "acid matter in the soil" (though he referred to mineral acids only), suggested to Ruffin the idea that there might be organic acids in the soil, which acted as a poison to the crops. In this conception he was far ahead of his time, as the existence of the vegetable or humus acids was not proved until a much later date. On this basis, he founded his theory of the action of lime on the soil, and at once proceeded to put it into practice. He found large beds of shell marl on his own place, and commenced to use it unstintingly on his own land, beginning his experiments in 1818. He started by applying the marl to a tract just cleared of forest growth, using from 150 to 200 bushels to the acre. The results were very encouraging, showing an increase of 40 per cent. over the crop on similar land without the marl. He continued his experiments for a number of years, keeping careful and intelligent records of the same. He searched the literature of every age and country for mention of marl and its application to agriculture. He

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informed himself thoroughly also as to the character and extent of calcareous deposits in his native State, and carefully studied out the best and most economical mode of utilizing them. His first published article was an essay on "Calcareous Manures," which was afterwards enlarged and published in book form reaching its 5th edition in 1852. From an article of eleven pages it expanded into a volume of 493 pages, the treatment of the subject being historical, scientific and practical, and even now it is regarded as the best authority on certain phases of the subject.

By this work and other publications, Ruffin stirred up the land owners in the Tide water district to use marl and to give their personal (and more intelligent) attention to the details of agriculture. His influence was so marked in producing a more careful, intelligent and successful mode of farming that the Governor of Virginia referred to this fact in his annual message to the Legislature about the year 1852.

Mr. Ruffin was largely instrumental in founding the Virginia State Agricultural Society, and was elected its first president. At different periods of his life, he was connected with various local agricultural societies, into whom he endeavored to infuse his own earnestness and enthusiasm. He earnestly advocated the establishment of an agricultural college, supported by the State, and in the main the details of his plan are now in operation in the agricultural colleges of the present day.

Amongst his important services to agriculture I should mention his editorial ones, in connection with "The Farmers' Register," of which he became editor and proprietor in 1833. The influence of this journal was very great, its articles well considered and carefully written, or selected from the better class of agricultural publications. Most of the reading matter came from Mr. Ruffin's own pen.

There has been a great change in the conditions of labor, and in things generally since Mr. Ruffin's day. Cheap slave labor made it possible then to obtain marl at slight cost, but it does not pay now to carry it to any great distance, and it has been displaced, to a great extent, by commercial fertilizers, but the fact remains that Ruffin was the great pioneer of agricultural chemistry in the South and both his contemporaries and posterity owe him a heavy debt of gratitude for his services.

Surry Co., Va., June 23, 1906.

I have been a subscriber to your valuable paper for only a few months and beg to say that in comparison to other agricultural papers (many of which I have read), I deem it the best in existence.

O. J. COCKES.

STOCK OWNERS USE

Foutz's

HORSE AND CATTLE

Powder



The oldest, best known, most reliable, and extensively used of all Condition Powders. It cures Chronic Cough, Hoarseness, Indigestion, Diarrhea, Hide Bound, Indigestion, Constipation, and all Stomach Troubles. Restores lost appetite, and increases the assimilation. It assists in fattening and increases the quantity of milk and cream. Guaranteed to give satisfaction. Sold by Druggists, General Merchandise, and Feed Dealers, or sent charges prepaid at the following rate:

1 Package, 25c; 5 Packages, \$1.00;
12 Packages, \$2.00.

BEWARE OF IMITATIONS and remember that each package of the genuine is covered with a pink wrapper. Send for descriptive literature.

The David E. Foutz Co.,
Baltimore, Md.

Tuttle's Elixir

\$100.00 REWARD.



Cures all species of lameness, clabs, splints, contracted cords, thrush, etc., in horses. Equally good for internal use in colic, distemper, founder, pneumonia, etc. Satisfaction guaranteed or money refunded. Used and endorsed by Adams Express Company.

SENT BY ALL DRUGGISTS.

TUTTLE'S FAMILY ELIXIR Cures rheumatism, sprains, bruises, etc. Kills pain instantly. Our 100-page book, "Veterinary Experience," free.

TUTTLE'S ELIXIR CO., 104 Beverly St., Boston, Mass. Beware of so-called Elixirs—none genuine but Tuttle's. Avoid all blisters: they offer only temporary relief but cause



NEWTON'S HEAVE AND COUGH CURE A VETERINARY SPECIFIC. 14 years' success. One bottle cures all cases of Heaves, Cough, and all other respiratory diseases. Send for booklet. The New York Herald, N.Y., Feb. 10, 1906.



LEARN HOW TO EARN \$3,000 A YEAR.

FROG RAISING: A business that starts on small investment and brings large returns. Our new book gives you the practical knowledge. Price postage \$1.00. The book will teach you HOW TO BREED, FEED & RAISE FROGS.

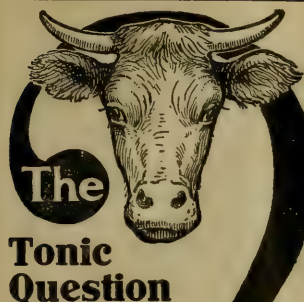
MEADOWBROOK FARM, ALLENDALE, N.J.

WANTED, TO BUY

A flock of 20 to 40 registered Shropshire sheep. Give description, weights, ages, H. R. GRAHAM, Chestertown, Md.

DEATH TO LICE *Amber's*
Lice kills all poultry vermin, lice on stock, ticks on sheep or vermin on plants. Try on poultry in a minute. Sample box 10 cents, postage 5c. 100 use 1/2 price \$1.00
THE O. K. STOCK FOOD CO.,
651 Monon Bldg., Chicago, Ill.

Mention The Southern Planter.



The Tonic Question

is how to make the steers and hogs fat quickest and cheapest—the cows give most milk for food eaten—the teams and driving horses show best condition and fitness.

DR HESS STOCK FOOD

the prescription of Dr. Hess (M. D., D. V. S.) contains the bitter tonics for the digestion, iron for the blood, nitrates to expel poisonous material from the system and laxatives to regulate the bowels. These ingredients are recommended by Professors Winslow, Quimman, Finlay Dun, and all the noted medical writers. Besides increasing growth and milk production, Dr. Hess Stock Food cures and prevents stock disease. Sold on a Written Guarantee.

100 lbs. \$5.00
25 lb. pail, \$1.60
Smaller quantities at a slight advance.

Where Dr. Hess Stock Food differs in particular is in the dose—it's small and fed twice a day, which proves it has the most digestive strength to the pound. Our Government recognizes Dr. Hess Stock Food as a medicinal tonic, and this paper is back of the guarantee.

If your dealer cannot supply you, we will.

DR. HESS & CLARK, Ashland, Ohio.
Also manufacturers of Dr. Hess Poultry Panacea and Instant Louse Killer.

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Any person, however inexperienced, can readily cure either disease with

**Fleming's
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—even bad old cases that skilled doctors have abandoned. Easy and simple; no cutting; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in

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Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durable bound, indexed and illustrated.
FLEMING BROS., Chemists,
280 Union Stock Yards, Chicago, Ill.

No More Blind Horses For Specific Ophthalmia, Moon Blindness and other sore eyes, Barry Co. Iowa City, Ia. have a cure.

THE LAND QUESTION IN VIRGINIA (Continued.)

Chapter IV.

HOW THE TORRENS SYSTEM AFFECTS BANKERS AND REAL ESTATE AGENTS.

In this chapter we will consider how the Torrens System will affect bankers and real estate agents.

Friends of the Country People.

You may have heard some thriftless or embittered persons sometimes describe the banker as a "Money Shark" and the real estate agent as a "Land Shark," but whenever such expressions are used you have no difficulty in understanding what is the matter with the speaker. You have never heard a thrifty or successful man, nor one actively engaged in the upbuilding and development of his community speak in that way. You have never heard a man whose credit was good or who had real estate of any value for sale, attempt to discredit the men who furnish the sinews of trade and promote the progress of the country. You have never heard a man trying to get a loan on honest business principles call his banker a "Money Shark," when seeking cash to push his business; and you have never heard one who is trying to sell his farm, call his real estate agent a "Land Shark" when he brought him a purchaser at a fair price. But when a man has worn out his credit, frittered away his property and run his shoes down at the heels, then he begins to denounce those who are required by law of self-preservation to insist upon strict business principles in the conduct of their business.

Without these principles, how long would the strongest bank in the world retain its integrity and continue able to aid commerce and extend trade? Bankers and real estate agents are among the best friends of the people and never fail to help those who help themselves. They have been the backbone of every great enterprise in this country. So far from oppressing the people and devastating the land, they have always had sense enough to know that their welfare is dependent upon the general prosperity and that honorable principles and honest dealings are necessary to their very existence. They would perish miserably like fish out of water if they were really "Land Sharks" or "Money Sharks." No such creatures can long exist outside of a diseased imagination; and if you think you have seen one, remember that even the actual appearance of one or more freaks has never been taken seriously by sensible men.

Worlds Real Property Congress.

At the great World's Fair at Chicago in 1893, a Real Property Congress assembled with distinguished delegates from all parts of the world. In speaking of the Torrens System which had then been tried for many years in New South Wales, Dr. Renwick, the execu-



**Warranted
to give satisfaction.**

GOMBAULT'S CAUSTIC BALSAM

A safe, speedy and positive cure for

Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a HUMAN REMEDY for Rheumatism, Sprains, Sore Throat, etc. it is invaluable.

Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials etc. Address

W. L. WRENCH-WILLIAMS COMPANY, Cleveland, Ohio.

Clean Bones

Any kind of growth
knocks the price of
the horse. Usually his services
are lost too. 99% of
these, including Spavin,
Ringbone, Curb and Splint
are cured by

**Kendall's Spavin Cure
Used Two Years Successfully.**

West Hampton Beach, L. I., N. Y. June 23, 1906.
Dr. B. J. Kendall Co., Ennsburg Falls, Va.
Gentlemen:—Please send me a copy of your
"Treatise on the Horse and his Diseases." I have
a stable full of lame horses and have used your
Spavin Cure for two years with the very best of results,
and cannot speak too highly of it.
Yours truly, John Outten.

Price \$1. 6 for \$5. Greatest
known liniment for family use. All
druggists sell it. Accept no substitute.
The great book "A Treatise on the Horse," free from druggists or

Dr. B. J. Kendall Co.
Ennsburg Falls, Va.

SHOE BOILS

Are hard
to cure, yet

ABSORBINE

Will remove them and leave no blemish. Does not blister or remove the hair. Cures any puff or swelling, \$2.00 per bottle, delivered. Book 7-8 Free. ABSORBINE, JR. for mauling, \$1.00 per Bottle. Cures Boils, Bruises, Old Sores, Swellings, Etc. Manufactured only by

W. F. YOUNG, P. D. F., 109 Monmouth St., Springfield, Mass.

Agricultural Lime

ALL GRADES.

CANADA UNLEACHED

Hardwood Ashes.

Any quantity desired and at bottom prices.

T. C. ANDREWS & CO.,

Norfolk, Virginia.

Phosphate Rock

Farmers and Stockmen should use my 65 per cent. untreated Phosphate Rock with their barn yard manure, thereby increasing its value 60 per cent.

Write for prices stating quantity wanted, your Railway Station and county.

THOMAS D. CHRISTIAN,

Wyndham, Powhatan Co., Va.

Shipping Point: Hallaboro, Va., So. Ry.

Orchilla Guano

AND

Swift's Bone Fertilizers

Conceded the best Fertilizers for Grass and Grain crops

Write for prices.

Diggs & Beadles,
SEED MERCHANTS,
Richmond, Va.

NOTICE.

As administrators of Wm. Thrasher's estate, we are offering some of our best SHORT HORN CATTLE including our herd bull, Royal Chief, No. 155422, at prices that will move them. A few POLAND-CHINA's also. This stock is all eligible to record. Prospective buyers will do well to see this stock. Come or write. J. F. CAMPER and LOUISA E. THRASHER, Admsrs., Wm. T. Thrasher, Dec'd, Springfield, Va.

Always mention the Southern Planter or when writing advertisers.

Want to Exchange

three reg. Berkshire sows, 1 Boar and 5 reg. Pigs weighing 25 to 50 lbs. for Reg. Hereford cattle or reg. Shropshire sheep. H. R. GRAHAM, Chestertown, Md.

A Neat Binder for your back numbers can be had for 30 cents. Address our Business Department.

tive commissioner, said: "From personal experience, as the owner of property, and one who has had varied experience with the old and the present systems of transfer of land in New South Wales, I consider the Torrens Act one of the greatest boons conferred on the people of our country. Although at first the members of the legal profession were opposed to it, the general feeling of lawyers and conveyancers is now decidedly and unanimously in favor of the provisions of the Torrens Act." At the same time, Mr. J. H. Mason, president of the Canada Permanent Loan and Savings Company of Toronto, said: "For nearly forty years I have been intimately associated with an institution to supply capital to the owner of real estate. The difficulties, vexations, delays, expense and uncertainties attending the old method of transfer have made a deep impression on me. For a long time I was led to believe that there was something inherent in land which prevented it from being dealt with like other kinds of property, and that like taxes and death the evil was inevitable and must be endured." But he added that, notwithstanding much opposition, the Torrens System was adopted by the Legislature of Ontario in 1854, "and is now universally admitted to be a great improvement on the old system." "People would as soon think of giving it up and going back to the old system," said he, "as of replacing the electric lights with tallow candles."

What Mr. Joseph Bryan says. This may remind you of what Mr. Joseph Bryan said in an interview published in the Times-Dispatch on March 4, 1903, when a number of prominent citizens gave expression to their views. Mr. Bryan was confident the Torrens System was one of the best moves ever inaugurated for the business interests of the State, and remarked: "My dear sir, the present method of the transfer of real estate is one hundred years behind the times. Compared with the Torrens System, it is like an ox-cart beside a modern locomotive."

Virginia Bankers' Association.

It was shown before the Tenth Annual Convention of the Virginia Bankers Association in June, 1903, that if our titles were certain and trustworthy and could be certainly and quickly transferred at reasonable costs, our real estate would be ample and available security for all the banking capital and bank deposits in the whole State of Virginia. We say ample because the assessed values of buildings alone, as shown by the Auditors report for 1902, was one hundred and thirty-eight millions of dollars, which the report for 1904 showed to have been increased to nearly one hundred and forty-eight millions, while the total assets of all our banks are

12 HEAD OF

Thoroughbreds

from 1 to 5 years old for sale. Also Brood Mares by Imp. Fatherless, Imp. Potentate. Jim Gray, Een, Aurus and Aureus. Nice lot of Colts, Geldings and Fillies. Never used or trained.

S. H. WILSON, Byrdville, Va.

You Want a Stallion?

Then It's a French Coacher, of Course!

Write me for prices and plan. I represent the Sedgely Farm of Hinsdale, Ill., largest importers and breeders in America. Best Stock. Prices right.

Intreped by champion Indro, in stud. Also breeding, Registered, Jersey Cattle Duroc Jersey Swine, B. P. R. Fowls. Selling Agent for Lithbelle Grain Grind Sharpless Separators.

Wm. G. Owens,
Midlothian, Va.

GOOD HORSES CHEAP.

One pair of horse mules, 10 and 12 years old, well about 1,000 lbs. each, a good, strong reliable farm team. Price \$300.

One brown mare 7 years old, weight 1,100 lbs., well shaped, well bred and a good driver.

One valuable bay mare, 8 or 9 years old, weight 1,200 lbs., fine work horse, good driver and perfectly reliable.

One 8 year old bay gelding, 1,050 lbs., rides and works well.

One chestnut mare, 7 years old, a good buggy horse and superior riding animal.

One deep sorrel mare, 6 years old, weight 950 lbs., well shaped, rides and drives well. W. M. WATKINS & SONS, Saxe, Va.

Percheron Stallion

BRILLIANT MONARCH JR., for sale; son of Dunham's BRILLIANT 121; age 14 years, vigorous, sound, good worker and seal getter, large flat bone, jet black and weighs over 1,600 lbs.; can't use him longer; price 3400 cash or its equivalent; also 2 fine male weanlings, same color. THOS. E. SMITH, Lincoln, Loudoun Co., Va.

PURE BRED

Percheron Stallions

Mares and Fillies for sale at all times. C. A. ALEXANDER & Co., Harrison, Augusta Co., Va.

3 PURE-BRED

ANGORA BUCKS

for sale; price reasonable. J. L. GRAY, Norwood, Va.

2 FINE

ANGORA BUCKS

for sale to avoid inbreeding. WALTER C. NOELL, Danville, Va.

REDS.**THE THOROUGHBREDS.**

The three Reds for sale.

Red Polled Cattle.

Red Duroc Jersey Hogs.

Rhode Island Red Chickens

The Red Polled Herd is headed by the Royal Blooded Herodotus—weighs over 1200 pounds and traces his lineage to sturdy Scotland.

The sire of Prince Harriman took first prize of Durocs at St. Louis in 1904.

Rhode Island Red Chickens—remarkable for their rich, red coloring, the cocks being magnificent in plumage. The eggs of this breed are large in size, fine color and good flavor. The chicks are all hardy, pullets mature at an early age.

Now ready for market.

Red Polled Bulls.

Red Duroc Jersey Hogs, pairs or three.

Rhode Island Red Chickens - Trio, Eggs.

Write me for prices.—JOHN H. HATFIELD, Harriman, Tenn.

PURE BRED

White Wyandottes.

Duston Strain,

Spring Hatched

Cockerels and Pullets.

25 Spring Hatched

S. C. BROWN LEGHORN COCKERELS.

Write Us for Prices.

ELLERSON POULTRY YARDS, ELLERSON, Va.

J. W. Quarles, Prop.

White Wyandottes

R. C. B. LEGHORNS.

Pullets and Cockerels of both breeds. Splendid healthy young stock. I have shipped everywhere and have never had a complaint. **WHITE WYANDOTTE EGGS** only at \$1 for 15 at present. Write me your wants. A. L. PARKER, Fall Creek Poultry Farm, Ashland, Va.

FOR OCTOBER DELIVERY.

WHITE WYANDOTTE, WHITE LEGHORN and BARRED PLYMOUTH ROCK cockerels and pullets. Prices low. F. C. LOUHOF, Yancey Mills, Va.

CHICKENS.

COOK'S WHITE ORPINGTON, DUSTON'S WHITE WYANDOTTE, HAWKINS BARRED ROCK. Nothing but the best at reasonable prices.

FINE MAMMOTH BRONZE turkeys. Miss CLARA L. SMITH, Prop., Landor Poultry Yards, Crozet, Va.

now only about one hundred and twenty-five millions; and we say available because these buildings are a productive form of property and would yield a fair return upon their assessed values. Recognizing these facts, the Association passed the following resolution:

"Resolved, That the adoption of the Torrens System of Land Registration would, in our opinion, promote the development of the State and confer material benefits upon all our citizens; and we respectfully urge that the General Assembly of Virginia speedily exercise the special powers conferred upon it for this purpose by section 100 of the Constitution."

Virginia Real Estate Association.

It was admitted that real estate men ought to know what will help lands. It is their business to sell and rent them, and they come in daily and intimate contact with owners and prospective purchasers of all sorts. Whatever helps, land will help them. Whatever helps, the owners of lands will help them. They know that good titles and quick, cheap and easy transfers are of fundamental importance. Therefore, at their first convention in December, 1903, they passed the following resolution:

"Being profoundly impressed by the need for reformation in our land laws, and believing that the Torrens System of Land Registration will add to the value of lands and promote the development of the whole Commonwealth, we respectfully urge the Legislature to pass the pending bill on this subject. And further, that each and every member write or see his Senator and Representative and urge the passage of this Bill."

(To be Continued.)

CHRISTIAN WORK IN OUR COLLEGES.

One of the most important religious movements of recent years is the development of the work of the Young Men's Christian Association in our colleges.

At the Virginia Polytechnic Institute, the University of Virginia, and at William and Mary College, there are well equipped buildings devoted to this work; well organized Bible classes, prayer meetings, together with systematic personal work.

The fact that large numbers of men are brought each year to lead a Christian life and that many others are sustained therein is a proof of the good work being done.

Baltimore, Md., March 13, 1906.

I await with pleasure the time every month to receive your valued paper. I have received and do receive more practical information from your paper than any other paper I have ever read.

CHAS. H. HEINTZEMAN.

Glenoe Farms
Verona, N. C.

We desire to announce to the public that we have purchased the entire **BILTMORE STRAINS** of S. C. and R. C. **WHITE LEGHORNS** and S. C. **BROWN LEGHORNS**, acquiring all their prize winners, interest and will for said breeds; in addition to the fine strains that we have been carrying, **BARRED PLYMOUTH ROCKS, WHITE WYANDOTTES, LIGHT BRAHMAS, WHITE and PARTRIDGE COCHINS, WHITE CRESTED BLACK SPANISH, BRONZE TURKEYS and MUSCOVY DUCKS and MAMMOTH ROUEN DUCKS.**

We will be glad to quote you prices on stock and eggs.

Poultry Wanted.**UTILITY STOCK,**

Early hatched Pullets and young Hens. Any pure breed but no fancy prices. Also

INCUBATOR EGGS

at once. **MONTA VISTA FARM, Route 4 Bedford City, Va.**

50 Single Comb 50
White Leghorns.

I have for sale 50 S. C. W. Leghorn hens and pullets, 20 yearling hens, 30 pullets. Good ones, \$12 per dozen, \$45 for the lot. If you want them, write quick. **CAL HUSSELMAN, Roxbury, Va., R. F. D. 1.**

Poplar Hill Poultry Farm
Dr. H. H. LEE, Prop.

CHOICE YOUNG BIRDS now ready for shipment, also some of my last year breeding birds will be sold at Bargain Prices. Order early and get the best birds. Choice Cockerels from \$1.25 to \$1.50, females \$1.00 each.
R. F. D. No. 4 LEXINGTON, VA.

Pekin Ducks

A fine lot at bargain prices. Write me about them.

I also have 40 other Varieties of pure-bred Poultry. Send 6c. and get my large poultry book.

JOHN E. HEATWOLE Box L, Harrisonburg, Va.

SPRING BROOK POULTRY FARM, Culpeper, Va.

S. C. B. LEGHORNS and Black Minorcas exclusively. 1½ and 2 lb. Cockerels, 50c. up according to quality. Eggs in season. Satisfaction Guaranteed.

"RARVA" MEAT MEAL

85 Per Cent. PROTEIN 7 Per Cent. FAT

IS A

POULTRY FOOD

THAT IS

**ECONOMIC,
CLEAN,
PURE.**

A SURE

EGG PRODUCER

AND

MEAT BUILDER

SAMPLE ON REQUEST

SACK 100 LBS. - \$3.00.

RICHMOND ABATTOIR.

Box 267. Department M. Richmond, Va

Send for the "Rarva" Booklet.

I HAVE

established what is undoubtedly one of the richest and truest reproducing strains of Actual Line bred

Columbian Wyandottes

in the United States; they are destined to be the premier variety of

America's Most Valued Breed.

MY

White Wyandottes

are excellent layers. Why not procure pure New Blood from me this year and lay the foundation of a persistent, rough weather laying flock—the kind that pays. Correspondence Invited.

COLFAX SCHUYLER,

BREEDER AND JUDGE,
Jamesburg, New Jersey.



Valley Farm

BARRED ROCKS

S. C. B. LE GHORNS

500 CHICKS, some show birds

Some for utility.

CHAS. C. WINE, Mt Sidney, Va.

Walsh's Barred Rocks

If you want high class business birds, I can please you. Money back if not satisfied. L. W. WALSH, Box 248, Lynchburg, Va.

HINTS BY MAY MANTON.

The blouse suit is so essentially becoming to small boys and so entirely satisfactory that every fresh variation is hailed with a hearty welcome. This is quite novel in treatment, yet includes all the essential characteristics and is suited to a variety of materials. The original is made of white serge, stitched with belding silk and trimmed with a simple banding, but blue serge and mixtures are admirable for the first cool days, while for immediate wear linen, duck and the like are in every way correct. Shepherd's check is one of the novelties and is exceedingly attractive for the smaller boys while mohair is admirable for between seasons wear and white silk is used for occasions of dress.



5452 Boy's Blouse Suit, 2 to 6 years

The suit consists of the blouse and the knickerbockers. The blouse is made with fronts and back and is finished with the big sailor collar beneath which it is buttoned to the shield. The sleeves are comfortably full, tucked at their lower edges to give a box plaited effect. There is a belt that confines the blouse at the waist line and the knickerbockers are of the regulation sort, drawn up at the knees by means of elastic inserted in the hems.

The quantity of material required for medium size (4 year) is 4 1/4 yards 27; 3 1/4 yards 36, or 2 1/4 yards 44 inches wide, with 6 1/4 yards of braid.

The pattern 5452 is cut in sizes for boys 2, 4, and 6 years of age.

S. C. B. Leghorns.



Cockerels by a grand 7 lb. Cock, direct from Wm. F. Brace at a long price. The finest Cook in the South. 3 doz. hens at \$10 doz., or \$1 each. Also Bradley Bros. strongest pullet and cockerel line in B. P. Rocks.

These strains of line-bred birds have been winning the Lion's share at leading shows for the past 20 yrs. Member American Leghorn Club. STRAWBERRY HILL POULTRY YARDS, Box 287, Richmond, Va.

Breeding yards 4 miles from city on C. & O.

GLENVIEW ORPINGTONS.

S. C. BUFFS Exclusively.

Some 3 year old hens at special bargain prices. Must be sold before cold weather. A postal will bring you the facts. B. S. HORNE, Keswick, Va.

I HAVE FOR SALE

300 S. C. BUFF ORPINGTON

cockerels and pullets—also one pen of one year old hens and one year old cock; 150 S. C. R. I. RED COCKERELS, 150 R. C. WHITE WYANDOTTE Cockerels. Prices reasonable. FOREST PARK FARM, Charles W. Smith, Prop., Williamsburg, Va.

BLACK'S

Black Langshans

are winning at the Fairs. Blood from this egg-laying strain will improve your flock.

A. M. BLACK, Tazewell, Va.

SINGLE COMB

White Leghorn

Cockerels, pure-bred, for sale at farmers' prices. Mrs. JNO. SANDERS, North, Va.

S. C. White Leghorn

Cockerels. I have for sale 20 fancy pure-bred White Leghorn Cockerels. Price \$1 and \$2, and they are worth \$5 each. Write quick. Also a few white and Brown Leghorn pullets. J. B. WADDILL, Tate Spring, Tenn.

Reference: City National Bank, Morristown, Tenn.

SINGLE COMB

Brown Leghorns

A limited number of Cockerels for sale; \$1.50 to \$2 according to quality. THOS. W. ROWLETT, Chula, Va.

SINGLE AND ROSE COMB

RHODE ISLAND REDS

S. C. BROWN LE GHORNS, BARRED PLYMOUTH ROCKS, and WHITE WYANDOTTES. Choice stock now ready for shipment. RIVERSIDE POULTRY FARMS, J. B. Coffman & Sons, Props., Box 73, R. F. D. 19, Dayton, Va.

Mention The Southern Planter.



Registered
Pure-Bred
Shropshire
and South-
down Rams

For Quick Buyers.

Only a few more left. Choice Ram Lambs, \$18 each. Yearling Rams, \$25 each. One Four year old Reg. South-down Ram Imported from Canada, price \$40. One 250-lb. Exhibition Shropshire Ram, Won Seven Prizes last Fall, price \$55. Bred Ewes, One to Four years old, \$20 each. All choice Choice specimens.



Special exhibition Offering of a few Breds for prompt acceptance. Lot No. 1—Silver Wyandotte Cockerels and Pullets from T. E. Orr's Special Prize Winning Matings. Prices, Pullets \$2 to \$4 each, Cockerels \$3 to \$6 each.

Lot. 2—Partridge Wyandotte Pullets from Orr's Prize Winners \$2.50 each.

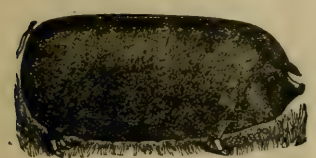
Lot No. 3.—Two Trios of Black Orpingtons, raised from Eggs purchased from the Orpington Originators, Wm. A. Cook & Sons and cost \$1 per egg. Price \$15 trio.

Lot No. 4.—Ten S. C. White Leghorn Cockerels from Eggs purchased from E. G. Wyckoff and from his most noted Prize Winning Pens. Price \$4 to \$6 each, and they are worth three times that amount.

I also have Choice Birds of all of the following Breeds and will sell Trios of any of them at \$6 trio if ordered in October. S. C. Buff Orpingtons, S. C. and R. C. Rhode Island Reds, White and Silver Wyandottes, White, Buff and Brown S. C. Leghorns, White, Buff and Barred Plymouth Rocks, Partridge Cochins and Silver Spangled Hamburgs. Pekin and Rouen and Colored Muscovy Ducks \$7.50 trio. White Holland and Bronze Turkeys at \$5 each for Toms and \$3 to \$4 each for Hens according to age and quality.

Berkshire, Poland China and Improved Chester White Pigs all ages. Can furnish pairs 2, 3 and 4 months old, also Service Boars 6 to 15 months old and Bred Sows first and second litters, all of which are eligible to Registry. Write to-day since these Special Offers will be withdrawn soon. "Special." Two 150-lb. O. I. C. Service Boars, both eligible to registry. Price if taken immediately \$19 each. Order to-day.

Address JAMES M. HOBBS, No. 1521 Mount Royal Avenue, Baltimore, Md.



The plaited skirt is the unquestioned favorite of the hour and is shown in almost endless variety. Here is one of the latest and also one of the most graceful that can be made either in the round length illustrated or shorter, in genuine walking length, as preferred. The plaits are arranged to give a double box plait at front, back and sides, and are stitched flat for a portion of their length to fall in abundant and graceful folds at the lower part of the skirt. The model is made from wood brown mohair, stitched with belding silk, but all skirting material can be utilized, the style being an excellent one for the coat suit, the gown and the separate skirt.



5430 Eight Gored Plaited Skirt,
22 to 32 waist.

The skirt is made in eight gores, the seams being concealed by the plaits, and is closed invisibly at the left of the back.

The quantity of material required for the medium size is 10 yards 27, 6 1/4 yards 44, or 5 1/4 yards 52 inches wide, if material has figure or nap; 7 3/4 yards 27, 4 1/2 yards 44, or 4 yards 52 inches wide if it has not.

The pattern 5436 is cut in sizes for a 22, 24, 26, 28, 30 and 32 waist measure.

We can supply these patterns at 10 cents each.—Southern Planter, Richmond, Va.

TUTTLE'S ELIXIR.

Gentlemen:—I had a horse that was spavined. I saw in the papers that Tuttle's Elixir would cure spavins in horses and I got it at the druggist's and tried it on my horse. It cured him sound and well. I would like to have your 100 page book on horses.

Respectfully yours,

HARRY TUGGLE, Campbell, N. C.

Northampton Co., N. C., July 12, 06.
I would not be without the Southern Planter for four times its subscription price.
J. S. GRANT.

No matter how good your lamp, a MACBETH chimney makes it better.

They are made to fit, and do not break from heat.

My lamp-chimneys offer the only practical remedy for all lamp-ills—good glass properly made. That's why they make good lamps better.

My Index is free.

Address, MACBETH, Pittsburgh.

CLOSING OUT BARRED Plymouth Rocks

As I contemplate engaging in other business, I offer my entire flock,

"The American Beauty Strain."

of Barred Plymouth Rocks, either separately or as a whole, 250 cockerels and pullets and 21 hens, including prize pen at Fredericksburg, Va., Fair, all farm raised stock perfectly Fens, all farm raised stock, perfectly healthy and in splendid condition. This is an excellent opportunity to get a pen or two of good foundation stock. Write me your wants; prices reasonable.

Will also sell a 420-egg Model Incubator, Model Brooders, Rock Crusher, Mann Bone Cutter, Wire-fencing, etc. Better write me at once. PARKIN SCOTT, Ashland, Va.

500

BARRED PLYMOUTH ROCKS AND BLACK MINORCAS

For sale. Also a fine lot of White Indian Game, R. L. Reds, Buff Orpingtons, Rose and S. C. Brown and White Leghorns at special bargains. Enclose stamp and state wants in first letter.

C. L. SHENK, Box P, Luray, Va.

YOUNG STOCK.

A Choice Lot for Sale at Prices to move them Quick. Buff Orpingtons, Barred Rocks, also a few Cockerels, 10 White Orpingtons, White Rocks and Buff Wyandottes. QUEENLAND FARM, Hagan, Va., R. No. 2 Box 7P.

ROSE COMB WHITE LEGHORNS BUFF PLYMOUTH ROCKS

Stock for sale. Eggs in season.

FRED NUSSEY, Massaponox, Va.

Barred Plymouth Rocks.

A few highly improved B. P. Rocks for sale, dirt cheap. Satisfaction or money refunded. W. C. Nowlin, Spout Springs, Va.

Mention The Southern Planter.

Cottage Valley Offerings

Several 15-16 GRADE ANGUS Bull Calves ready for service—will make fine bulls for grading up a herd.

A fine lot of thoroughbred O. I. C. pigs, both sexes at reasonable prices.

BULL CALVES out of Southern Cows, by Angus Bull.

Several registered Angus bull and heifer calves.

S. L. Wyandotte Eggs, \$1 for 15.

Five Llewellyn Setters. Pups of just right age to be broken in this fall; color tan and white; price \$6 each.

Several fine family Milch cows young, gentle and fresh to the pail. W. M. WATKINS & SONS, Saxe, Va.

Do You Like To Make Money?

If you are a farmer, one way to make money is to get a pure-bred Bull to produce the kind of calves that sell at good prices. Any of the beef breeds will do you lots of good, but you had better try a sure thing and get a GALLOWAY. They are as good as any and hardest of all; thrive where others fail; make beef, cream and finest of robes. Calves from a Galloway Bull from any sort of cows will be all black, hornless and of the true beef type. What more do you want?

I have Bulls of all ages for sale at \$5 to \$200 each.

N. S. HOPKINS, Gloucester, Va.

THE GROVE FARM GUERNSEYS.

First prize herd at Timonium and Hagerstown, Md. Only places held shown.

BULLS ONLY FOR SALE.

OUR BEEK-HIRES

Were unbeaten at Timonium and Hagerstown and York, Pa., only places shown in 1905.

PIGS, BOTH SEXES FOR SALE.

JAS. McK. MERRYMAN, R. F. D., Cockeysville, Md. C. & P. Telephone and Telegraph, Lutherville, Md.

REGISTERED

Holstein-Friesian

Cattle; best butter producing strains; pure-bred JERSEY CATTLE, CHESTER WHITE, BERKSHIRE, JERSEY RED HOGS, and all the LEADING BREEDS OF SHEEP, also DUCKS, POULTRY and TURKEYS.

Write for my prices.

W. R. BELLECK, Huntington Harbor, L. I.

50 HEAD

JERSEY COWS

and Heifers and 1 fine 6-year old Bull, for Sale. These cattle will be sold far below their value. D. G. MILLER, Redox, Va.

CLUBBING LIST.

In this list will be found prices on papers, magazines and periodicals which are most called for by our readers. We have club rates with nearly all reputable publications, and will quote them on request:

Dailies.	With Alone, S. P.
Times-Dispatch, Richmond, Va.	\$6 00 \$6 00
Times-Dispatch (without Sunday)	4 00 4 00
News-Leader, Richmond, Va.	3 00 3 00
The Post, Washington, D. C.	6 00 6 00
The Sun, Baltimore, Md.	3 00 3 40
Thrice a Week.	
The World, New York....	1 00 1 25
Weeklies.	
Times-Dispatch, Richmond, Va.	1 00 1 25
Central Presbyterian, Richmond, Va.	2 00 2 25
Southern Churchman, Richmond, Va.	2 00 2 25
Harper's Weekly	4 00 4 00
Breeders' Gazette	2 00 1 50
Country Gentleman	1 50 1 75
Hoard's Dairyman	1 00 1 30
Horseman	3 00 3 00
Semi-Monthly.	
Kimball's Dairy Farmer..	1 00 75
Monthlies.	
The Century	4 00 4 25
St. Nicholas	3 00 3 25
Lippincott's	2 50 2 50
Harper's Magazine	4 00 4 00
Delineator	1 80 1 80
Harper's Bazaar	1 00 1 40
Scribner's	3 00 3 25
American	1 00 1 35
Cosmopolitan	1 00 1 35
Everybody's	1 50 1 75
Munsey	1 00 1 35
The Strand	1 20 1 50
Madame	1 00 1 00
Argosy	1 00 1 35
Review of Reviews..	3 00 3 00
Field and Stream..	1 50 1 50
Women's Home Companion	1 00 1 25
Reliable Poultry Journal..	50 75
Industrious Hen	50 75
Poultry Success	50 75
Blooded Stock	50 65
Successful Farming	50 60
Amer. Fruit & Nut Jour..	50 75
Southern Fruit Grower..	50 85
Shepherd's Criterion	50 75
Commercial Poultry	50 75

When two or more publications are wanted, the price for them can be found by deducting 50 cents from "price with Southern Planter."

We cannot under any circumstances furnish sample copies of other publications.

We will cheerfully quote our best price on any list of publications submitted to us.

College of Agriculture and Experiment Station.

BLACKSBURG, - VIRGINIA.

BEEF CATTLE.

ANGUS & SHORTHORN BULL CALVES for immediate delivery. These calves are well bred and are good, growthy individuals, ranging from 7 to 14 months of age.

SHORTHORN COWS AND HEIFERS.

We are offering a few young cows and heifers old and some heifer calves, and have a few pigs on hand for immediate shipment.

HOGS.

BERKSHIRES. We are now taking orders for fall delivery of pigs of both sexes, and have a few pigs on hand for immediate shipment.

For prices and information apply to JOHN R. FAIN, Agriculturist.

Swift Creek Stock and Dairy Farm

Has for sale a large number of nice young registered A. J. C. C.

JERSEY BULLS And HEIFERS.



None better bred in the South. Combining closely the most noted and up-to-date blood in America. Bulls 4 to 6 months old, \$75. Heifers, same age, \$50. POLAND CHINA PIGS, \$5 each. Send check and get what you want.

T. P. BRASWELL, Prop., Battlemore, N. C.

THOROUGHBREED

Berkshire Boars, Jersey Bull Calves, Dorset Buck Lambs.

Sire of Calves, FLYING FOX 65456, son of Flying Fox who sold for \$7,500 at the Cooper sale 1902.

All stock in best of condition and guaranteed as represented.

F. T. ENGLISH, Centreville, Md.

FOR SALE AT LOW PRICES.

Reg. Hereford Bull, 7 months old, splendid individual of excellent breeding, large and well made.

Grade Hereford Heifers and Cows in fine shape.

SEED WHEAT, Red Wonder and Bearded Fulcrast, in excellent order. For price apply to WM. C. STUBBS, Valley Front, Farm, Sassafras, Va.

2 HIGH BIRD

REG. JERSEY BULLS

1 and 2½ years old, for sale; also a few nice cows. Nice lot of S. C. B. Leghorn pullets and a few choice 1 year hens. RIVER VIEW DAIRY FARM, C. M. Bass, Prop., Rice Depot, Va.

Holstein Bull Calf

born August 14th, 1904, for Sale. He is very large and as finely bred as any in the State, being out of Anglia Clothide by Monk's Count. W. W. JACKSON, Farmville, Va.

Mention The Southern Planter.

SHORTHORNS.

One cow, one yearling heifer, one yearling bull and three Bull calves for sale at bargain prices.

2 Year Old Colt

by Supremacy, out of well bred mare; \$125 buys him. He's the handsomest in the State. R. L. LEACH, Front Royal, Va.

REDUCTION SALE.

Blooded Stock Cheap,

300 DUROCS, 150 SHROPSHIRE, 100 SHORTHORNS and POLLED DURHAMS. White Scotch Collies (All Pedigreed), 300 Plymouth Rocks (White, Buff and Barred). See our Dr. Quick, Stock Judge at Lynchburg, Va. Fair, sat week in October. S. R. QUICK & SONS, Gosport, Ind.

PURE-BRED

Shorthorn Bull

4 years old, not registered, for sale; Price \$50. Apply to WM. F. STEPHENS, Birdwood, Va.

REGISTERED

Hereford Bull

Calves for sale; \$50 each. J. L. PITTS, Mountain View Stock Farm, Scottsville, Va.

ROSE DALE HERD...

Aberdeen Angus

Top notch young registered Bulls on speciality. A few heifers to offer with bull not skin. We send out none but good indivi duals. Correspondence and inspection of herd invited. ROSE DALE STOCK FARMS Jefferson, Va.

Walnut Hill Herd

Aberdeen Angus Cattle

Calves, 3 months old and up, for sale.

J. P. THOMPSON, Prop., Orange, Va.

Edgewood Stock Farm,

ABERDEEN-ANGUS CATTLE.

A nice lot of Angus cattle, as good as any in the State, for sale at reasonable prices. J. A. HARDY, R. F. D. No. 1, Blackstone, Va.

REGISTERED

RED POLL BULL

"Prince," 5 years old, for sale. T. M. DETTRICK, Lorraine, Va.

SCOTCH COLLIE

pups for sale. We are now ready for your order for a choice Collie Pup. Finest breeding in America. Eligible to registry, tracing to many Ch. dogs such as Christopher, Ormskirk Emerald, Ormskirk Wellington, and Doda Marvel. We have pleased others and will please you. Address H. H. ARBUCKLE, Edgewood Stock Farm, Maxwellton, Va.

Mention The Southern Planter when

ENQUIRER'S COLUMN.

BLACK LEG.

In your valuable paper for September, Mr. J. Wm. Yancey asks to know something about "Black Leg" or "Bloody Murrain," in limestone country. This county is most all limestone and bloody murrain is very bad every year since I've been here (moved here six years ago from Fauquier county, Va.). We have had more rain this year than usual and more murrain. I have lost one cow, had three others sick, but saved them by following directions of Farmers' Bulletin No. 258, from U. S. Bureau of Animal Industry. I am now using as a preventative Mr. Yancey's receipt in Southern Planter.

HENRY D. AYRE.

Bradley Co., Tenn.

The remedy referred to in the Farmers' Bulletin is one given for Tick or Texas fever and not for Black Leg. The two diseases are often confounded as they have some symptoms in common, but they are two distinct diseases. They are both alike in one thing—they are practically incurable by any known remedy. The one suggested is as good as anything tried, but, as the author of the Bulletin himself says, treatment has generally been unsatisfactory. The proper course is to prevent the attacks. In the case of Black Leg, the use of Black Leg vaccine as an inoculant is practically a certain preventative, and in the case of Texas fever, the getting rid of the ticks will remove all fear of an attack.—Ed.

LIME BURNING.

I am sending you under separate cover by mail to-day a rock from which I have an idea I can make me some good lime for my land. I have several cords of good, rough, dry pine wood I could burn it with if I can make lime of it. My idea is to put down a layer of green timber and then on this about two layers of dry wood, all about two feet high from the ground, and on this keep putting on a layer of wood and a layer of rock until I get it as high as I want it, and by this method burn it into lime? What about it? T. G. POOL.

Halifax Co., Va.

Your ideas as to burning lime at home are all right if you only had the limestone. The rock, however, which you send is not limestone, but a quartz rock, from which no lime could be made. You are too far East to have any limestone on your place. Your only means of making lime at home would be to buy oyster shells and burn them, and how far you could do this profitably we are unable to say, as we do not know what facilities you have for getting them. If you could get them delivered cheaply enough, the

HEREFORD

When anyone speaks of Beef Cattle, you naturally think of Herefords. If you have not been on the great Western and Southwestern ranches and seen the Hereford on a thousand hills, or visited any of the great packing centres and seen hundreds of cars of "white faces" being led to the Slaughter, then you haven't a clear conception of how greatly this splendid breed is appreciated. You must admit that these countless numbers attest the popularity of the breed.

WHY THE HEREFORD?

On these ranges, they must have a hardy, thrifty, rustling, breed—one that can take care of itself under the strenuous conditions that obtain. The Hereford does this to perfection. And he does it profitably to his owner because when he comes to the block, he dresses more net, beautiful, marbled beef than any other breed. A casual investigation will prove this to you.

Now, if this isn't just the breed needed in the South, then I have greatly misjudged conditions. Take my word for it, this breed with its docile temperament, will promptly adapt itself to our conditions and the Bulls bred to native cows will pay for themselves in the shortest time imaginable.

At "Castalla," you will find the best there is in the breed. Come and see for yourself and if I don't sell you, no matter how large or small your wants, it will be my fault. Carriage will meet visitors by appointment. MURAY BOOCOCK, "Castalla," Kewlick, Va.

CATTLE.

Poland China Pigs

Some fine ones, young sows bred, young boars and pigs. No better breeding in the United States. My herd boars have been sired by J. H. Sanders, Lookmeover. Perfect I Know, Proud Perfection, Corrector and High Roller, the greatest prize winners of the breed—my sows have been as carefully selected.

RED POLLED CATTLE. Fine good young bulls. Will sell a few cows and heifers **ARROWHEAD STOCK FARM.** Charlottesville, Va., **SAM'L B. WOODS.** Propr.

STERLING HERD.

Duroc-Jerseys and Berkshires.

A lot of 8 weeks pigs ready about Nov. 15.

R. W. WATSON, Petersburg, Va.

POLAND CHINAS.

with the business hams; booking orders for fall pigs. Sired by Tecumseh Perfection 2nd, and out of sows sired by S. C. A. U. S. Chief. Irvin Climax, Chief, Corrector, Stones Sunshine, Sunshine of Maple Grove. Have for sale two males and one female. Sired by Chief Climax 2nd, and out of a fancy Sunshine sow. Growthy and good individuals. Price right. Satisfaction or money refunded. Write your wants. **A. GRAHAM & SONS, Overton, Albemarle Co., Va.**

Imported Yorkshire Swine.

are the money makers. Our Stock is from the greatest Prize Winners.

Our Poland Chinas

for sale cheap. A yearling herd header Boar, weighed 180 lbs., at 7 months; bred sows; splendid pigs. No fair offers refused. Overbrook Farm, 6 & 8 W. Conway St., Baltimore, Md.

Registered P. China Berkshire C. Whites. Large strain All ages mated not skin, 8 week pigs. Bred sows, Service boars, Guernsey calves, Scotch Collie pups and poultry. Write for prices and free circulars. **P. F. HAMILTON, Cochranville, Chester Co. Pa.**



Large Yorkshire AND Berkshire Hogs.

Gilts and young boars at about butcher prices on account of having to be away from my farm during the winter and spring of 1906-7. Also 6 Angora goats at a bargain if taken at once.

H. D. COLEMAN, Ivy Depot, Va.

O. I. C. SWINE.

A few service boars by "Virginia Chief" \$10 each. **SCOTCH COLLIE PUPPIES, \$5.** also **BUFF ROCK and ROSE COMB WHITE LEGHORN CHICKENS.** **T. M. WADE, Lexington, Va.**

burning of them is a simple matter. The following description of kiln will enable any farmer to burn his own lime either with coal or wood, and from limestone or shells:

A kiln of lime 20 feet wide and 30 feet long would hold about 100 perches, which would make 2,500 bushels. It depends on the per cent. of lime in the rock; 97 per cent of lime would make 3,000 bushels. Make foundation of kiln of slabs, put close together and all cracks filled up tight. Have the bottom not less than six inches thick and a flue to run the length of kiln with two logs eight to ten inches thick and the space between the logs 12 inches and filled with fine wood, same as bake oven wood, close together and at the center of flue make a box ten inches in clear and to run to top of kiln filled with fine wood. Put coal on foundation of wood to cover the wood and then put first layer of limestone broken so as to make a level surface broken so as to make a level surface, then cover first layer with coal three inches thick. This can be coarse coal or slack. Then put on 18 inches of stone broken same as first course. Taper sides and ends to 45 degrees, so that the coal will lie on to cover, then put three inches of coal on, then put 20 inches of stone well broken same as the first, then 3 inches of coal and then put two feet of stone and then coal and you can make your kiln as high as you want to. Bank up your kiln with dirt all around two feet, then put slack coal on the sides and ends. Have the sides and ends well covered with slack and then cover slack with soil nearly to top of kiln. When you go to bank up leave open where your flue is at each end so you can start the fire, and when your kiln is well caught with fire, close up both ends with soil and then you will have a good burn. It will take ten or twelve days to burn out and will take seven bushels of coal to burn one perch of stone. It we could not get coal we would burn with wood. Put on layer of wood and then layers of limestone and cover with soil six inches thick all over.

SAWDUST.

Kindly give me advice as to best use I can make of a large heap of half rotted sawdust. Would it do to make compost, mixed with stable manure as we do pine trash? What is its relative value as compared with pine trash or tags?

SURRY CO., Va.

SUBSCRIBER.

Sawdust has practically no manurial value. It is not worth while to waste time with it. If not too much rotted, it might be used as an absorbent of liquid manure in the stables or pens. It serves in that way as a means of getting the liquid into the land, but adds nothing to its value. Pine trash has considerable humus, making ma-

Milboro' Springs Stock Farm

offers a few pure-bred Berkshire pigs by **OLD DOMINION, 7748A.** Every pig sold is guaranteed to be as represented, or your money refunded. **J. GRAHAM DAVIDSON, Mgr., Milboro' Springs, Va.**

REGISTERED BERKSHIRES.

We have magnificent imported and American sows in our herd, and on these we are using **LONGFELLOW, MASTERPIECE** and **LOYAL LEE OF FRANCESCO** boars. It is our observation that this is the way to produce hogs that will mature early and grow large animals with the proper form. Write for catalogue. **HIGHLAND FARMS, W. H. DORIN, Prop., Mount Laurel, Va.**

BERKSHIRE HOGS.

6 pigs, farrowed May 23rd, 1906, 2 males, 4 females; 1 fine sow 6 mos. old by Lord Chesterfield out of Lady Chesterfield; All purchased. Also my Registered hogs, Lord and Lady Chesterfield, est 3 years old. Prices low. Write me. **J. A. TURPIN, Hallsboro, Va.**

Meadowview Berkshires

We will be at **THE STATE FAIR** at Richmond, Oct. 9th to 13th, and we extend a cordial invitation to our friends to visit us and look over our stock. **MEADOWVIEW FARMS, Fawn Grove, Pa.**

BERKSHIRE BOARS.

I offer some exceedingly choice young boars for sale; by Imported Danesfield Tailor, 76490 and out of Biltmore bred sows. It will be hard to find better or cheaper stock.

HENRY WARDEN, Fredericksburg, Va.

Tamworth Pigs From Registered Stock of Fine BREEDING.

VOLNEY OSBURN Blamont, Loudoun Co., Va.

SALT POND HERD

Duroc Jerseys.

The top of 60 head of April, May and June pigs for sale. Sired by **PAUL J.**, (son of Oom Paul) **MONARCH** and **LONGFELLOW.** Prices reasonable.

S. A. WHITTAKER, Hopside, Va.

SOME FINE

Duroc Jersey

Pigs for sale, also some Registered sows and boars. **J. P. LEACH, Jr., Littleton, N. C.**

DUROC-JERSEYS

Acknowledged to be the most prolific hog-bred. A fine lot of pigs now ready to ship on approval. **CLARENCE SHENK, Luray, Va.**

Mention The Southern Planter.

ELLERSLIE FARM—

**Thoroughbred Horses
AND SHORTHORN CATTLE,
Pure Southdown Sheep
and Berkshire Pigs.**

**FOR SALE, R. J. HANCOCK & SON,
CHARLOTTESVILLE, VA.**

**DEVON HERD. HAMPSHIRE DOWN FLOCK
ESTABLISHED 1884. ESTABLISHED 1880.**

DEVON CATTLE

**BULLS and HEIFERS,
Hampshire Down Sheep,
RAMS and EWES.**

ROBT. J. FARRER, Orange, Va.

SUFFOLK DOWN SHEEP.

A limited number of my flock of Suffolk ewes for sale, all pure bred and pedigreed. These are fine and large mutton sheep from late importations.

Have a few **BERKSHIRE BOARS** ready for service out of Hurricane the 4th of Blitmore and High Clerie Choice of Blitmore. **B. E. WATSON, Stuarts Draft, Va.**

**Edgewood Stock Farm.
DORSETS.**

Ram lambs for June shipment. If you are in the lamb business you need one.

**J. D. ARBUCKLE and Sons,
Greenbrier Co.,
Maxwelton, W. Va.**

DORSET SHEEP

We purchased at the World's Fair, at St. Louis, a ram that was second at this show. We have some of his lambs, and they are the best that we ever raised, as good as we ever saw. There are flock leaders among them that would please the most exacting. **J. E. WING & BROS.,
Mechanicsburg, O.**

**KENTUCKY MULES.**

We are now taking orders for yearling and mule colts for September and October delivery. We have a big supply of saddle and trotting stallions, Jacks, Jennetts, Poland Chinas and Tamworth hogs.

Write us your wants.

J. F. COOK & CO., Lexington, Ky.

**I HAVE THE FINEST JACKS
IN THE WORLD**

and the greatest variety to select from. I will also sell you as good imported horses as ever crossed the ocean at prices from \$700 to \$1000. Write for catalogue.

**W. L. DECLOW,
Cedar Rapids Jack Farm, Cedar Rapids, Iowa.**

BOOK ON POULTRY DISEASES FREE. A healthy, strong vigorous flock is the only kind that pays. Conkey's famous book tells you how to keep your flock in that condition. Regular price 25 cents but for a limited time free to those sending 4 cents for postage and the names of two other poultry keepers. ***WRITE TO-DAY.**
The G. E. Conkey Co., 328 Ottawa Bldg., Cleveland, O.

terial in it and may sometimes be used with advantage, though we have no high opinion of its value, except to lighten a heavy soil or cover up a bare soil and so help to conserve the fertility.—Ed.

**CANADA PEAS—SOY BEANS—
VETCH.**

How early will it be safe to sow Canada peas with wheat on pea stubbles.

Soja beans will not grow after tobacco. They come up all right, but die when about 6 inches high. Will Canada peas be affected that way?

Are Canada peas as hard to cure as the stock pea?

I have a ten acre lot, red chocolate loam, which was seeded to winter vetch six years ago; vetch came up all right, but most of it never got over six inches high. In two places it made very heavy growth—one where an old tobacco barn had stood, and one a very poor rocky knoll about 1-20 of acre, on these it has continued to come every year. Can you explain why it should grow on the richest and poorest places and no where else? The whole field was covered with partridge pea when prepared for the vetch.

Will Canada peas and wheat make good pasture for hogs to be followed by cow peas or soja beans for hay or hog pasture?

Is winter vetch or hairy vetch best for hay in northern North Carolina?

Granville Co., N. C.

W. L. TAYLOR.

Canada peas may be sowed in your section in January.

We think the reason the soybeans failed after tobacco was because the land was not inoculated with the soy bean bacteria. If you had sowed them on the same land the following year they would in all probability have grown well, the first crop having introduced the bacteria. We have frequently had the complaint of a partial failure of this crop when sown the first time, but they always succeed when sown two or three times in succession. When sown the first time, the land should be inoculated with the soy bean bacteria. We do not think you need fear the Canada peas will suffer in the same way, as the pea bacteria is more or less present in most of our cultivated land.

No. The stems and leaves are not so succulent and the crop can be allowed to stand until more fully matured before cutting without loss of the peas, as they do not shell so easily as cow peas.

The vetches failed, in our opinion, from the want of plant food in the soil. Where the old tobacco barn had stood there was both potash and lime available in the soil from the wood

**Southdown Sheep
and ESSEX PIGS**

A fine lot of Southdown lambs, pure stock Essex Pigs ready for shipment in June, July and August. Your order solicited.

L. G. JONES, Tobaccoville, N. C.

Hawksley Stock Farm

Has a few fine **BERKSHIRE PIGS** yet for sale, from Imported Stock. Prices right. Satisfaction guaranteed. **J. T. OLIVER, Prop., Allen Level, Va.**

STRICTLY FIRST CLASS**Poland-Chinas.**

Sows bred or open; young pigs single or in pairs. **C. H. MILLER, R. F. D. 3, Richmond, Va.**



hogs when whites are just as easy and look so much nicer. **O. I. C.** is the hog to raise.
F. S. MICHIE, Rio, Va.

WHY RAISE DARK SKIN**Chester Whites**

at Farmers' prices. Best hog on earth. One **O. I. C.** Boar, 1 year old cheap. **S. M. WISECARVER, Rustburg, Va.**

Yakima Co., Wash., June 6, 1906.

I have been a reader of your farm journal for some time and admire it for its faithfulness in sticking to the truth about farming. Many of the farm journals are an abomination. They are often made up of trash, gathered up by the four winds of imaginative writers. But not so with the Southern Planter. Its tone is high and the farmer who does not appreciate its reading matter is not worth the honor of sticking to the calling.

FRANK S. FARQUHAR.

Detroit, Mich., July 12, 1906.

The editorials and "Work for the Month" in the Southern Planter strongly appeal to me. The square, plain talk contained therein, if followed, must be of great benefit to every working, thinking farmer who is fortunate enough to read them.

FRANK BRACY.

Hampton, Va., June 18, 06.

The Southern Planter comes regularly to the Library and is read with interest by both students and instructors. We consider it the "Gospel" of Virginia Agricultural literature.

O. W. CASWELL.

Roane Co., Tenn., June 22, 06.

I would not like to try to farm without the Southern Planter, which I find so helpful on all occasions. I consider it the best farm paper I have ever seen.

JNO. H. HATFIELD.

Nelson Co., Va., June 4, 1906.

The Southern Planter is always a welcome visitor. **JAMES DICKIE.**

WANT ADS.

Rate 2 cents per word. Cash with order. Initials and figures count as one word. 25 cents minimum charge.

WANTED—FIRST CLASS UP-TO-DATE

Farmer to work under manager on large farm fifteen miles from Lynchburg, Va. Must have thorough knowledge of stock raising; horses, mules, Shorthorn cattle, Southdown sheep, hogs, poultry (dubators), understand planting and raising grain and fruit in South, rearing farm machinery. Wife, butter maker, fruit canning and care of owners house. House, six rooms, stable for two horses, cow, pig, chicken sheds and garden given. Wages \$50 to \$60 per month.

None but first class people need apply. References thoroughly investigated. Write for particulars. "South," care of Southern Planter.

SEDOLEY FARM FRENCH COACH

Brood Mares, most fashionable breeding, Registered and bred to finest stallions in America, for sale at half price. Write for particulars. Wm. G. Owens, Midlothian, Va.

WANTED—GOOD, RELIABLE RENTERS

or men to farm on shares, owners to furnish all or none of stock and seed, shares divided according to what is furnished. Correspondence solicited. Highland Farms, W. H. Dorin, owner, Mount Laurel, Va.

HOLSTEIN-FRIESIAN CATTLE FOR SALE

Cows, yearlings, calves and Young Bulls of the most fashionable breeding. Choice English Berkshires, Barred Plymouth ROCKS. Fassitt Bros., Sylmar, Md.

A NICE FARM OF 226 ACRES ON JAMES

River below Richmond for sale; land in fine condition; would make a splendid Dairy farm. Trolley line near the place. For information write to J. R. Land, R. F. D. 1, Manchester, Va.

WANTED TO RENT, FOR A TERM OF

years from January, 1907, a good general and stock farm equipped with stock and up-to-date machinery; Piedmont section preferred. Best of references furnished. R. B. Leatherman, 99 N. Stewart St., Winchester, Va.

WANTED—MAN OR BOY (WHITE) TO AS-

sist with poultry, chores and make himself generally useful, no farm work; state age, salary expected and give references as to trustworthiness. Laurel Hill Poultry Farm, Roxbury, Va.

FOR SALE OR TRADE FOR SHEEP; TAM-

worth Boar, 6 months old at \$10; Shepherd Pup, 10 weeks old, \$2.50; 10 W. P. R. hens, \$3.60; all pure-bred and good. Mrs. B. F. Averill, Howardsville, Va.

WANTED—A MAN OF INDUSTRIOUS

habits, good judgment and unquestionable integrity as working foreman on a farm in Pulaski Co., Va. Address K. Y. Z., Lexington, Va.

FOR SALE—CHOICE S. C. BROWN LEG-

horns from prize winning stock at reduced price. Address, Evergreen Farms, W. B. Gates, Proprietor, Rice Depot, P. Ed-ward Co., Va.

FAMILY INTENDING TO RETURN SOUTH

desires to exchange 240 acres near Winnipeg, Manitoba for desirable farm. Fred-erick Warren, 724 Eighteenth Street, Minneapolis, Minnesota.

FOR SALE AT A BARGAIN, MANN'S

Bone Cutter, or will exchange for Pure Bred Pigs and Poultry. Clarence L. Bred Pigs or Poultry. Clarence L. Shenk, Luray, Va.

burnt to cure the tobacco, and on the rocky knoll there had no doubt been a growth of briars and weeds, which had penetrated deeply into the sub-soil with their roots and brought up and made available the potash and phosphoric acid latent in the soil. No doubt, also, the rocky condition of the soil made it more permeable by the roots of the vetches, and they thus got food from the subsoil. The presence of the partridge pea insured the presence of the pea bacteria and, therefore, the cause of failure could only be the absence of the mineral fertilizers—phosphoric acid and potash. If you would break the land deeply and then lime it and apply either acid phosphate or raw phosphate rock, we think you would get a good stand of vetch.

Yes.
We think the hairy vetch will be likely to suit you better than the winter vetch, though either will succeed.—Ed.

Grape Wine.

Pick the grapes, put them in a wooden or earthen vessel, squeeze well and let stand for two days, squeeze and strain. To one gallon of juice add one or three pounds of sugar and let stand for three or four days, skim and draw off. Bottle, but do not cork tight. In a week or two draw off again. Bottle and cork tight, and it will keep for any length of time.

A SUBSCRIBER'S WIFE.
One who enjoys the Planter very much.

WEEDS GROWING—PLOWING LAND.

Why is it that as we improve our land (upland) sorrel and wild onions commence to grow freely and continue until they almost ruin the growing crop. What will prevent the growth of these pests?

Please say how to treat a piece of land when the deeper you plow the stickier it gets and will not shed off the plow.

J. L. WAGNER.

Yadkin Co., N. C.

The seed of the weeds you complain of is in the land and when you improve its condition you make it a congenial soil for their growth at the same time as you improve it for your crops, and they being indigenous, are able to make quicker growth than the crops. The only way to get rid of the pests is to put the land into cultivated crops for several years, and by these means clean the land of them and prevent the shedding of more seed. Sometimes they may be smothered out by making the land rich enough to grow heavy crops of cowpeas in summer and crimson clover and vetches in winter. An application of lime will often help to get rid of sorrel by making possible the growth of better

WANTED—all farmers to write to P. J. Wrenn, R. F. D. 4, Disputanta, Va., for lowest club rate on Southern Planter and Chattanooga Weekly Times.

WANTED—A YOUNG MAN TO ACT AS ASSISTANT in dairy, farm being six miles south of Richmond. Wages \$25 per month, including board. Address, Miniborya Farm, Box 901, Richmond, Va.

WANTED—MARRIED MAN WITH SMALL family to farm on shares with proprietor's stock, must give reference. Address Box 50, Irwin, Va.

BE YOUR OWN MILLER AND GRIND your corn on cob in Litchfield Mill. Best and cheapest. Wm. G. Owens, Agent, Midlothian, Va.

WANTED—AN EXPERIENCED MAN TO manage farm near Newport News. Good references required. Benson Phillips & Co. Box 8, Newport News, Va.

WANTED—RELIABLE WHITE WOMAN for house work in small family; good home. Address "Mrs. S," care Southern Planter.

SHELLAP, RUBBER ROOFINGS, ELASTIC roof paint. Best and cheapest. Wm. G. Owens, Agent, Richmond, Va.

FOR SALE, HIGH GRADE RED POLL Bull Calves, Milk Cows and Farm and Coach Mares. Osmore Stock Farm, Ladore, Va.

WANTED—SOBER INDUSTRIOUS MAN TO work on Farm. References required. Address "M," Box 797, Richmond, Va.

FINE LOT REGISTERED YORKSHIRE Pigs 6 to 10 weeks old, \$8; order quick. W. E. STICKLEY, Strasburg, Va.

ONE PAIR ANGORA GOATS FOR SALE; fine ones. JAS. POULSEN, Williamsburg, Va.

TWO CHOICE LITTERS OF REGISTERED Berkshire Pigs for sale at \$5 each if taken at 8 weeks old. L. B. Johnson, R. F. D. 4, Charlottesville, Va.

BE SURE AND READ MY DISPLAY Advertisement about French Coach Stallions. Wm. G. Owens, Midlothian, Va.

BEAUTIFUL SCOTCH COLLIE BITCH for sale cheap; also sable and white collie pup, 5 mos. old. T. C. COLEGROVE, Route 3, Blackstone, Va.

GENUINE RHODE ISLAND RED COCK-erels for sale; \$1.50 each. MRS. J. F. CONALLY, Pamplin City, Va.

WANTED—YOUNG MAN TO HELP ON small farm of 26 acres. O. D. Belding, Claremont, Va.

FOR SALE—PURE PEKIN DUCKS \$1.50 A pair, 50 cents each for young ones. Mrs. Wm. N. Mebane, Colliertown, Va.

BARGAIN SALE—30 CHOICE S. C. BUFF Orpington cockerels, \$1 to \$2; cocks \$2 to \$3; hens, \$1.50 to \$2. N. B. Crutten, Jeff-ress, Va.

FOR SALE, 1 REGISTERED ANGUS COW, 5 years old; will be sold cheap. 1 Osgood wagon, 5 mos. old, 10,000 lbs. capacity, practically new. W. A. Harrison, Ashland, Va.

Lancaster Co., Va., July 10, 1906.
I look forward to the Southern Planter's monthly visits with a great deal of pleasure and derive much benefit from it. R. W. CHILTON, SR.

plants. Onions are one of the worst pests to get rid of, as they increase both at the top and the bottom at the same time. Only clean cultivation for several years will subdue them.

From your description we should judge this land needs drainage.—Ed.

PIGS DYING.

I have a Berkshire sow 17 months old. She had a litter of pigs two weeks ago (9). At five days old, they began to dwindle away, with sores about the eyes and ears, and later all over them. All nine are dead under two weeks old. The sow is fat and healthy, weighing about 200 pounds gross. Could I safely breed her again?

J. W. RODGERS.

Dinwiddie Co., Va.

It is impossible to say what caused the pigs to die. It may be that the milk of the sow was the cause of the trouble. This may have been affected by something she had eaten or it may be that the disease was something inherited from the boar. Are you sure she had sufficient milk to suckle the pigs? This may not have been the case and the pigs really pined to death. If satisfied that she had milk sufficient, we would breed her again, but not otherwise.—Ed.

CHEESE MAKING.

Please send me a receipt for making home made cheese. W. L. WILSON.

Write the Department of Agriculture, Washington, and ask them to send you Farmers' Bulletin 166, which gives full instructions for making cheese.—Ed.

BLOODY MILK—ROTATION OF CROPS.

1. I have a cow that gives a little blood in her milk just before I get through milking, and there are lumps of blood that stop the flow of milk at times. What is the cause and remedy?

2. I have two acres in cowpeas that were in wheat this year, would you seed the same to wheat this fall or put in corn next year?

STEPHEN P. POOL.

Granville Co., N. C.

1. Blood may escape with the milk when the udder has been injured by a blow, or it may be caused by inflammation or congestion caused by cold or by change of food, or it may simply arise from the bursting of a small blood vessel in the teat or from the cow coming in heat. Where the udder is inflamed, give one pound of epsom salts in warm water and dally therewith half an ounce of saltpeter and a



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Beautiful Fox Terrier Puppies—great ratters.

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EVERGREEN FARMS

offers for sale **Registered Jersey Cattle**, male and female; **Registered Berkshire Hogs**, 2 months old; **S. C. Brown Leghorns** from Prize winning stock. Write your wants.

W. B. GATES, Rice Depot, Pr. Edward Co., Va., N. & W. Railway.

dram of chlorate of potash and bathe the bag with hot water and rub with camphorated lard.

2. Plant in corn next spring. Sow crimson clover or hairy vetch with a mixture of wheat, oats and rye at once after the peas are harvested to cover the land during the winter, and plow down in the spring and you should get a good corn crop, especially if you will help the clover and grain to make a good growth with some acid phosphate, say 300 pounds to the acre.—Ed.

SICK CATTLE—GRASS FOR NAME.

My cattle are afflicted with a very bad disease. They get sore in mouth and tongue; they slobber very badly and discharge from the nose like a horse with distemper, dry up in milk, and die. Can you tell what it is and give a remedy?

I send some grass for name. It grows from four to six feet tall on very poor, sandy land. I was riding by it the other day and my horse ate it very greedily. Has it any name? Putnam Co., W. Va. C. M. FARRA.

The cattle suffer from Stomatitis. It is supposed to be caused by a fungoid growth on the grass and is always worse during a wet grazing season like that we had this summer. Take the cattle off the grass and give them mashies of bran and nice hay or blade fodder. Wash the mouth and nostrils out once or twice a day with a 2 per cent. solution of Zenoleum or Creolin. These preparations can be had at the drug store. Give clean, fresh water to drink, and in the first bucketful in the morning put a tablespoonful of chlorate of potash and stir until dissolved.

The grass is False Red Top. It is of very small nutritive value.—Ed.

IMPROVING LAND.

I have a farm of very stiff, red clay soil that has been considerably run down years ago. What kind of fertilizer would you advise me to use to build up my land fastest with and at the same time make good crops? I would like to know if Basic Slag is a land improver. Also, I would like to know which is the best, bone meal or Peruvian Guano for such soil as mine.

Ashe Co., N. C. F. C. YOUNG.

The very prevalent idea that all that is needed to improve land is to put into it plenty of commercial fertilizer is one of those errors which we have been trying for the past twenty years to get out of the heads of Southern farmers. What nearly every acre of Southern land needs much more than commercial fertilizer is good, deep plowing, very often supplemented with subsoiling, and perfect, frequent working of the land with the cultivator, harrow and roller or plank

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Williams' Shaving Soap is a combination of skill and honesty. It was best in 1840 and is still best.

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Buy the best—that's Williams'—and stick to it.

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A RARE CHANCE IN

BERKSHIRE PIGS.

The Southern Railway in double tracking through Montview Farms has taken our hog-yards and part of our hog-house. Therefore we offer a few Berkshire Boars and Sow Pigs, magnificently bred. **FOR LESS THAN HALF OUR USUAL CHARGES**, pending the construction of a new hog house and runs. Sons and Daughters of **MANOR FAITHFUL**, imported out of splendid breed sows. Also several sons and daughters of **BARON PREMIER**, 3d, a World's Fair winner out of an Imported Sow.

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Montview Farms,

CARTER GLASS, Owner.
C. L. STAHL, Manager.

Box 513, Lynchburg, Va.

Fancy Berkshire Pigs

from directly imported sows and boars practically imported blood for you at one-third usual price for such breeding; half imported and half American breeding at pocket-change prices—just a little money order or bank account needed for these. Extra fine open and closed gilt.

PEKIN DUCKS and EGGS for sale. S. C. Brown Leghorn eggs cheap. Barred Plymouth Rock eggs cheap.

pure—all of them. Thomas S. White, Lexington, Va.

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Sir John Bull.

Fastidious Stock and Poultry Farm.

drag, until the whole depth of the soil has been finely broken to pieces and thoroughly mixed together. It also nearly all needs to have from one to two tons of lime applied to the acre to sweeten the soil and improve its physical and mechanical condition and to make available the inert plant food in the soil. After it has thus been brought into better physical and mechanical condition, and been made permeable by the air and water, it needs to be filled with humus, decayed vegetable matter to make the soil capable of holding moisture, and prevent its baking, and this vegetable matter will also help to make the plant food in the soil available. This vegetable matter should be supplied by applying farm yard manure or by growing on the land cowpeas, crimson clover, or common red clover, soy beans or vetches, and one or two crops of any of these crops should be plowed down when fairly matured and when the land is cool before attempting to grow a crop to be taken off. It may be necessary to help the land to make the first of the humus-making crops by applying 200 or 300 pounds of acid phosphate per acre in order to get a heavy growth. These humus-making crops will get nitrogen into the soil from the atmosphere, the lime applied will make the potash naturally to be found in the soil and especially abundant in red clay soils available. The only other element needed to feed plants is phosphoric acid, and whilst there is always considerable quantity of this in the soil, it is in an unavailable condition, and hence the necessity for applying it in some form. In the form of acid phosphate, it is the quickest available. Raw phosphate rock will also supply it in a form which will be permanent in improving production, but it is slower in action and requires the growing and turning under of leguminous crops, like cowpeas, to make it available, or the presence of plenty of vegetable matter in the soil. Basic Slag is also a supplier of phosphoric acid and acts well upon some lands, but, like the raw rock, it is slow in action, but permanent in improving production. Bone meal also is an excellent medium for supplying phosphoric acid, and it also supplies nitrogen and therefore is a valuable application to make to land for the production of crops. Peruvian Guano, which contains all the three elements of plant food, is an excellent fertilizer to apply to land which is well supplied with vegetable matter, but to apply it or indeed any other commercial fertilizer except acid phosphate to land which has not been deeply and finely prepared and filled with vegetable matter is to waste money. They cannot do more than just stimulate the crop to make an effort to produce something and in this effort they further deplete the soil of its natural fertility and leave it in a worse condition

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are in a class by themselves as the best separators. But many have the mistaken idea which competitors help to magnify, that they are "expensive" and that something "cheaper" will do in their stead.

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are not only the best but at the same time by far the cheapest—in proportion to the actual capacity and the actual life of the machine.

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BREEDING EWES. STOCK SHEEP.

I am still receiving large consignments of
BREEDING EWES and FEEDING LAMBS and WETHERS
and can furnish them until November.

Send for descriptive Catalog and Price List.

I am offering as a special bargain this month about 25 Breeding
Ewes that will make anybody money. They run in ages from year-
lings to six and seven years old, and are plenty good for two years
yet. I will sell these Ewes at the low price of \$3.00 each while they
last.



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than before the application. If farm-
ers would only get these primary ideas
for improving and making permanent-
ly productive the land they cultivate
into their heads and act upon them,
they could save thousands of dollars
wasted on commercial fertilizers and
have productive lands and greater
crops every year.—Ed.

CORN IN HORSES FOOT.

What is best to do for a horse with
a corn in the bottom of the foot and
working through to the top of the
hoof?

W. H. BAGBY.

King & Queen Co., Va.

DISEASED SHEEP.

This seems to be a case of suppur-
ative corn. In such a case the loosened
horn on the sole of the foot must be
cut away so that the pus may freely
escape. If the pus has worked a pas-
sage to the coronary band and escapes
near the hoof, an opening must be
made on the sole and cold baths made
astringent with a little sulphate of
iron or copper are to be used for a day
or two. When the discharge becomes
healthy, the fistulous tracts may be
injected daily with a weak solution of
bichloride of mercury, nitrate of sil-
ver, etc., and the foot be dressed with
oakum balls saturated in a weak so-
lution of tincture of aloes or spirits
of camphor and apply a roller band-
age. Change the dressing every two
or three days until a firm, healthy lay-
er of new horn covers the wound.—Ed

I am a reader of your Southern Planter
and think it a splendid agricultural
paper. I had Dorsets shipped from
West Virginia. They seem to have
strangles and cough. Please let me
know about gasoline treatment and
ammonia. Give directions for admin-
istering. WM. SIMMONS.

Onslow Co., N. C.

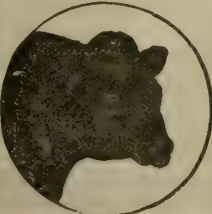
The dose of gasoline is as follows:

- 1 Teaspoonful for a suckling lamb
- 2 Teaspoonful for a weaned lamb
- 3 Teaspoonful for a yearling.

SUNNY HOME HERD —OF— Aberdeen - Angus Cattle.

We make our living breeding Angus cattle, consequently we must breed the sort
that will sell at all times. Our experience, gained through a long term of years; con-
vinces us that this sort is produced only by mating cattle of the very choicest blood-
lines and highest individual merit. We maintain a good sized herd of females, every
individual of which, has for sire, a great prize-winning bull. To mate with these great
females, we use bulls that have demonstrated their ability to make good.

Our sales prove our theory of breeding to be correct. We do business every week
in the year. For herd breeders, write A. L. FRENCH, Prop., R. F. D. 2, Byrd
ville, Va.



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ROYAL ANGUS CATTLE

is not surpassed either in breeding or individual animals
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PRINCE BARBARA, 68604,

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equally choice breeding. Write your wants. Remember,
we take personal care of our cattle; keep no high priced
help; incur no expense of exhibiting; all of which enables
us to offer stock at equitable prices. Send for pamphlet.
15 bulls from 2 to 15 months old for sale.

MYER & SON, Prop.

Bridgeville, Del.

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are at the top and there to stay. Write us and we will give you some hog facts
that will convince you.

We have the blood of ORION, OHIO CHIEF (recently sold for \$2,000.00), SENSA-
TION, SURE WINNER, TOPNOTCHER, PROTECTION, KANT-BE-BEAT, LONGVEL-
LOW, WASHINGTON KING, GO-FORWARD, FAYETTE CHIEF, and HIGH CHIEF,
besides a string of others of the leading Western winning strains, THE VERY CREAM
OF DUROC-JERSEY BREEDING. Our prices are low and the quality is high. We
can save you money in the purchase price and in expressage. Write at once and we
will give you some DUROC FACTS.

LESLIE D. KLINE, Vaucluse, Va.



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A Superior lot of Pigs by my fine Boars,
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pairs not akin to those previously pur-
chased. Come to headquarters and get the
best at one-half Western prices. Oldest herd
in the State.

J. B. GRAY, Fredericksburg, Va.

4 Teaspoonful for a matured lamb.

Mix the gasoline with the milk to make an emulsion. Fast the sheep 12 hours before giving the dose. Dose the sheep three times at intervals of twenty-four hours. To administer the dose, never stand the sheep up on its rump or throw it down. Push the sheep back into the corner of the shed, stand straddle of the neck, with left hand, hold the sheep by the lower jaw with head just slightly elevated and with the right hand bring the drench bottle carefully into the mouth just after you have shaken it well. If you have a rubber tube in the mouth of the bottle, you can regulate the flow of the dose by pinching the tube. Never attempt to force the dose, or it will get into the lungs and kill the sheep. Have a bottle of aromatic spirits of ammonia at hand so that you can give the sheep a teaspoonful or two if it is much affected by the gasoline. A bottle of strong ammonia is also useful to have at hand to hold to the nose of the sheep if it appears to be at all overcome. Just let it have one or two good smells. This will usually revive it.—Ed.

SWEET POTATO STORING.

Would like you to give the best method for keeping sweet potatoes during the winter. Would like to see answer in October number, if possible.

Nottoway Co., Va. H. J. S.

In the article on Work for the Month in the Garden Department of the October issue, you will find a paragraph dealing with the storing and keeping of sweet potatoes.—Ed.

PLANT FOR NAME.

What kind of clover is this and can the seed be obtained commercially? I find it vigorously spreading among and apparently supplanting the broom sedge on land that has never been plowed. The land where it is growing is undrained and has been practically flooded for the past month, but the clover is green and flourishing. It would seem that good pasturage might be developed and the fertility of the land improved by simply broadcasting the seed of this clover on the broom sedge lands.

Thanking you in this matter and also for the constant help your journal is to me.

Bladen Co., N. C.

TYRO.

As we were in some doubt as to which of the clovers this was, from its being so overgrown and devoid of leaves and bloom when it reached us, we sent it to Professor Dewey, the Botanist of the Department of Agriculture. We thought it to be *Trifolium arvense*. He says it is *Trifolium repens* (white clover or Dutch clover). This is a valuable food plant and

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This Book Brings the Inside Workings of our Large Factory, one of the Largest in the World, Right to Your Home.

It tells you all about the Famous Split Hickory Line—how they are made, the kind of material used, why we can give you better values than you can get elsewhere. It gives a complete history of how these celebrated buggies are manufactured right from the hickory log and raw material into the most beautiful buggies of quality, ready for shipment to your home on thirty days free trial.

You Can Have a Buggy to Your Order, Just as You Want it, and Shipped Without Delay. We carry a very large supply of all vehicle parts in stock finished and ready to put together. We can ship quicker than any other factory. There is no delay in our large and fully equipped vehicle plant. Everything moves like clock work. This book explains our wonderful system of building buggies at the least possible cost to manufacture, which enables you to buy your vehicles at fifty per cent less than you can buy them for through the dealers.

OVER 100,000 SPLIT HICKORY BUGGIES IN USE THROUGHOUT THE UNITED STATES WITH EACH AND EVERY CUSTOMER SATISFIED

We manufacture over 800 different styles. Book illustrates many of these beautiful styles, in color, exactly as they will appear in your home. Write me now—today—on a postal and book will come to you by return mail.

H. C. PHELPS, President, OHIO CARRIAGE MFG. CO., Station A10 CINCINNATI, OHIO.

Berkshire Pigs.

I have about 30 pure-bred Berkshire Pigs from 2 to 4 months old which I will sell at prices all too low, considering their quality and breeding which I assure you is the best.

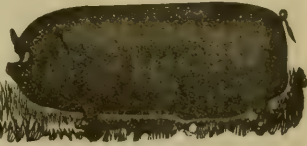
Write me your wants or come and make your own selection. You'll get a bargain.

Holstein Friesian Cattle; Barred Plymouth Rock Fowls.

THE GROVE STOCK FARM

H. W. and So Ry.

T. O. SANDY, Prop. Burkeville, Va.



also an improver of the land, and you could not do better than encourage its growth as much as possible. The seed can be had from seedsmen.—Ed.

PLANTS FOR NAME.

I send two plants for name. No. 1 grows extensively on my land in thick masses. Is it any good to the land in any way, or is it of any account as feed for stock? No. 2 has small bean-like pods on the stems, has nodules on the roots. Is it good for stock, and is it a land improver?

Scott Co., Va. W. H. COLLIER.
No. 1 is Rough button-weed. No. 2 is Sensitive Pea. Neither of the plants are of any economic value. They are weeds and may become troublesome if not destroyed.—Ed.

PLANT FOR NAME.

What is the name of enclosed plant? Would it be of much value to turn under as a fertilizer? Is it of any use for anything and, if so, for what?
Pulman, Ill. JNO. W. BEAVIS.

The plant is Partridge pea. It is of no economic value as a food plant. Being a legume, it would improve land if plowed down, but there are other and better plants of the same family which can be grown wherever this plant grows.—Ed.

PLANTS FOR NAME.

I send by mail to-day two plants, to which I wish you would give name and value for hay. W. M. WHITE.
Henry Co., Va.

The plants are Pigeon grass and Rough button-weed. Neither are of any value as feed, but are troublesome weeds when they infest land.—Ed.

DISEASED EYE OF HORSE.

I have a black mare ten years old which seems to have some trouble with her left eye.

About once a month her eye turns blue with a slight whitish discharge. Her sight in this eye appears to be somewhat impaired and the eye looks drawn. The trouble was first noticed about six months ago. I will be obliged if you can suggest the cause of the trouble and a remedy.

Alleghany Co., Va. C. B. SCOTT.

The mare is suffering from Recurrent Ophthalmia. It is usually stated

HAVE YOU EVER USED Dr. Jos. Haas' Hog Remedy?

IF NOT

YOU HAVE MADE THE GREATEST MISTAKE OF YOUR LIFE

For 30 YEARS Dr. Jos. Haas' Hog Remedy has been tested without failing and is conceded to be the BEST HOG REMEDY ON EARTH.

The old and reliable INSURANCE PROPOSITION is still open to all swine raisers—wherein I will agree to PAY FOR ALL HOGS THAT DIE when my REMEDY is fed as a preventive. Write for plan or read particulars in my book "HOG LOGY," which will be sent FREE for the asking. A complete treatise on PROFITABLE SWINE-RAISING.

30 DAYS FREE TRIAL OFFER—Any reader of this paper remitting direct to me for a can or half can of my Remedy at prices below, and will give same a fair trial for 30 days, will have his money refunded if at the end of that time he is not satisfied that his hogs have been benefited, that the Remedy will do all that is claimed for it and that it is the best Hog Remedy he has ever used.

PRICES:

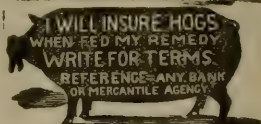
25-lb Can, - - \$12.50, Express Paid

Half Can, (12½ lbs), \$6.50, Express Paid

Packages, \$2.50, \$1.25 and 50 Cents Each

NONE GENUINE WITHOUT MY
SIGNATURE.

DR. JOS. HAAS, V. S., - - Indianapolis, Ind.



ENGLISH AND AMERICAN BRED

Registered Berkshires.

Ages 3 months to 1 year; prices \$30, \$35, \$40, \$45, to \$40 each, depending on breeding and age.

1 Boar by Imported Loyal Master; Dam, Imported Danesfield Vain Maid.

4 Boars by Imported King Hunter; Dam, Berks Pansy of Biltmore.

4 Boars by Dorset Lee of Biltmore; Dam, Imported Danesfield Vain Maid.

1 Boar by Dorset Lee of Biltmore; Dam, Berks Pansy of Biltmore.

1 Boar by King Chimes; Dam, Toppers First of Kenilworth.

1 Boar by Dorset Lee of Biltmore; Dam, Toppers of Biltmore.

Also a number of Boars by Imported Royal Carlyle, who won first at the Royal Show of England over all classes, and the highest priced six months old pig ever sold.

For Descriptions and prices, write EDGAR B. MOORE, Biltmore, N. C.

FOREST HOME FARM

Offers For Sale

Berkshire Boars

as follows:

Yearling Boars from Imported Animals.

1, 10 Months Old Boar. FINE.

6, 8 Months Old Boar Pigs.



Also a large number of pigs of both sexes.

FOREST HOME FARM

PURCELLVILLE, VIRGINIA.

Tell the advertiser when you saw his ad.

POLAND CHINAS

The Big Kind and the Prize Winning Kind.

PIGS, BOARS AND BRED SOWS FOR SALE.

Hard boars now in service are D's Corrector, 98157, bred by Winn & Mastin of Kansas, and a half brother to the Senior Champion Boar at the St. Louis World's Fair. Half interest in the sire of D's Corrector 98157 sold for \$2,500.00. My other herd boar Big Jumbo Vol 27 O. C. R., was sired by the 1100 lb. hog PERFECT I AM, 50777 and out of the 700 lb. sow, Lady P. Sanders, 79040. Big Jumbo was bred by W. S. Powell of Kansas.

Also a few SHROPSHIRE EWES bred to a superb Imported Ram. Also a few choice White Leghorn Cockerels for sale; Biltmore strain. Satisfaction guaranteed or stock may be returned at my expense.

J. F. DURRETTE, Birdwood, Albemarle Co., Va.



that this disease is caused by pasturing on low, damp lands, but there are other authorities who claim it to be caused by a microbe, and others attribute it to heredity. It usually ends in blindness, sooner or later. Treatment is not satisfactory. It may give temporary relief and postpone the time of blindness. Keep in dark stable when the attack is on. Hang a cloth over the eye and keep this wet with a solution made up of thirty grains of borax or sulphate of zinc in a quart of water. Instil into the eye a solution of four grains of atropia in one ounce of distilled water. Put on with a feather and repeat every ten or fifteen minutes until the pupil is widely dilated. Feed bran mash and easily digested food. —Ed.

PARAFFINE HINTS FOR THE HOUSEWIFE.

Paraffine is one of the most useful of all wax products. Its small cost is making it wonderfully popular, and the up-to-date housewife finds it almost indispensable.

She preserves her jellies and jams by pouring a little melted paraffine over the top of the contents of each glass. The paraffine is cooling, forms a perfect air-tight seal that prevents mould and assures cleanliness. It saves the bother of cutting papers and fitting lids, as no other cover is necessary.

Another and somewhat similar use for paraffine is for sealing fruit jars after the lid has been screwed on. As every woman knows, a defective rubber, careless handling, or any cause for the admission of air results in a can of spoiled fruit. She can insure every can of her fruit by inverting the can, after the lid is screwed on, and dipping into a pan of melted paraffine.

A teaspoonful of melted paraffine stirred into the hot starch improves the gloss and prevents the sticking of the iron, while half a cupful of chipped paraffine mixed with the soap on wash day is a wonderful saver of labor.

The highest grade of paraffine is manufactured by the Standard Oil Company for household use, and is sold by most grocers. It is a beautiful translucent wax, tasteless and odorless. It is put up in moulded cakes of about one pound each, and neatly wrapped. Full directions for use with each cake.

"RARVA" BOOKLET.

An interesting bit of poultry literature is the "Rarva" Booklet, issued by the Richmond Abattoir, Richmond, Va. Sent free on request. See their advertisement of "Rarva" meat meal in this issue.

St. Mary County, Md., May 21, 1906.
I cannot do without the Southern Planter.
H. J. BUHRMANN.

Glenburn Berkshires.

"Champions Beget Champions."

Our Hogs are of matchless size, style and quality and are from the bluest blooded animals of England and America.

We have pigs by imported Loyal Hunter and Hightide Commons, the greatest boars that ever crossed the Atlantic; also by Premier Longfellow and Masterpiece, winners of 1st and 2nd at World's Exposition St. Louis; they are out of great sows sired by Lord Premier and out of such great winners as Charming 65th, Combination, Duchess 2nd, etc. Forfarshire Golden Lad Jerseys.

DR. J. D. KIRK, Roanoke, Va.

Horse Bargains.

FOR QUICK SALE.

I offer MISS BUFORD, 2248 (American saddle Horse Breeders Association), ch. mare foaled August 30th 1895, gaited, regular breeder, with foal to woodford.

Also BROWN BESS 2nd, brown mare foaled May 17th, 1901. She has fine stun colt also side by General S. 1786. She has only 3 gaits, walk, trot and canter.

Price for the three, \$450.

JNO. F. LEWIS, Lynnwood, Va.



INGLESIDE HEREFORDS

Owned by S. W. Anderson, Blaker Mills, Greenbrier county, W. Va.

A choice lot of BULLS, COWS, and HEIFERS for sale. Also a few POLLED HEREFORD BULLS recorded in the National Polled Hereford Records. Write for catalogue and prices. Farm near Alderson, W. Va., on the C. & O. R. R. Telegraph and Telephone office, Alderson W. Va.

ACTOR 26th, 186288

K.L.E. HEREFORD CATTLE.

HIGH CLASS HERD.

Prices Very Reasonable.

EDWARD G. BUTLER, "Annefield Farms,"
BERRYVILLE, - - - VIRGINIA.

POLAND CHINA, TAMWORTH, BERKSHIRE

Pigs at Farmer's prices. Also Bred Sows and Service Boars.
All stock entitled to registry and satisfaction guaranteed.

APPLY TO

J. C. GRAVES, Barboursville, Orange Co., Va

WASHINGTON NOTES.

Opium Production in America.
Several months ago, a number of newspapers published an article stating that the Department of Agriculture was making experiments with a view to manufacturing opium here instead of importing the drug from abroad. The publication of such an article brought down thousands of letters of protest to the Secretary of Agriculture from various religious societies. Inquiry, however, at the Department revealed a different state of affairs than as heralded in the dispatches, as the argument is made there that had the writer of the original newspaper story carefully examined his ground, and digested the aims of the Department, no such erroneous statement would have been made.

"We are not attempting to manufacture opium at the Department," said Dr. B. T. Galloway, Chief of the Bureau of Plant Industry. "Neither are we going to grow poppies at home with a view to introducing opium making at home, but on the other hand, our investigations, if successful, will materially reduce the amount of opium imported.

"Our investigations with the poppy plant, under the direction of Dr. R. H. True, physiologist in charge of drug plant investigations, are more in line with the separation of morphine, codeine, etc., directly from the plant juices. These alkaloids are the legitimate stock in trade of the physician or pharmacist.

"In the first place, opium, it must be understood, is obtained only by hand work—an occupation which it would not pay an American to undertake. Each morning the attendant goes through the field and gives each poppy seed bulb a slight scratching with a sharp knife which causes the plant to bleed. In the evening, this sap which has excluded through the abrasion is dry and the gatherer can scrape it off with a blunt instrument. But a tiny pellet is obtained from each pod. These pellets are gathered in a pound or two lump, and after subsequent treatment, make the commercial opium.

"When crude opium formerly sold at \$25 a pound such hand work could prove profitable and did so in a number of instances in America, but not now, when it is selling at 2.50 a pound as one would get little returns for the labor involved.

"Up to the present time, morphine, codeine and the other alkaloids are extracted from the imported crude opium. Our investigations with the poppy plant are more in line with the separation of these directly from the plant, either when it is in the green state or when dry, even though the dry pod be two or three years old. To do this, it is necessary to understand the construction of the poppy plant. It is traversed by an elaborate series of

Hygeia Farm Holsteins.

The Finest Herd of Registered Holsteins in the Southern States

COWS—THE JESSIE VEEMAN FAMILY

headed by that grand individual, JESSIE VEEMAN A., and including seven of her daughters justly come first.

JESSIE VEEMAN A. is admitted by the best judges to be one of the finest types of the Holstein cow, both in conformation and productive ability. Many honors of the show ring have fallen at the feet of this "Bovine Queen." In 1903 at the New York State Fair, she was adjudged CHAMPION COW. Official record 26.25 lb. butter in 7 days with an average milk production of over 83 lb.

JESSIE VEEMAN C., the oldest daughter, closely resembles her mother in outward conformation. She carried off the highest honors at the New York State Fair in 1905, against strong competition. She has just completed a record of 20.4 lb. butter in 7 days.

JESSIE VEEMAN HENGVERVELD. This is one of the greatest producers of this wonderful family. At 3 years old, she produced 16.1; at 4 years, 20.33; and at 6 years, she produced 21.4 lb. of butter in 7 days, the last record being made in very hot weather and under unfavorable circumstances.

The other five daughters are individuals of the highest merit, both in daily conformation and in individual excellence.

FRONTIER JESSIE VEEMAN, 19.4; JESSIE VEEMAN DIONE, 14.98; BERYL JESSIE VEEMAN A., (at 2 years), 9.68; JESSIE VEEMAN A. 2D (at 2 years), 14.43; JESSIE VEEMAN DE KOL (untested).

JOE BACH JOSEPHINE

another famous member of the herd, is one of the five cows that won the "dual purpose test" at St. Louis in 1904. Her A. R. O. Record is 23.83 lb. butter in 7 days.

HULDA ABBERKERK DE KOL, granddaughter of DE KOL 2ND, has just completed a record of 19.67 lb.

SCOTIA 4TH, A. R. O. Record, 20.15 lb. butter in 7 days.

NETHERLAND FANCY ROSETTA, A. R. O. Record, 20.53 lb. butter in 7 days.

COUNTRESS DORINDA DE KOL, A. R. O. Record, 20.37 lb. butter in 7 days.

PRINCESS KORNDYKE DE KOL. This is a very fine individual whose breeding shows a combination of the blood of DE KOL 2ND, BELLE KORNDYKE, JESSIE BEETS, and NETHERLAND HENGVERVELD. The average official record of two of her nearest dams is 24.43 lb. butter in 7 days.

AALTJE DE KOL, 17.33; Shadeland Dulcibel 4th, 16.47; ANZAETTA PAULINE PAUL 2D (at 2 years), 10.13; MANOR GRACE PIETERTJE (at 1 year, 9 months), 9.16; DAISY PEOPLES, 15.48; LADY OF BURTON AAGGIE, 15.79; LADY OF HILLSIDE (untested).

BULLS—PONTIAC CALYPSO'S SON.

This is one of the finest of the "IMPERIAL PONTIACS," partaking at once of the individual excellence, both in conformation and production, of his two wonderful grand-sires, HENGVERVELD DE KOL, and DE KOL 2ND'S PAUL DE KOL. His dam, PONTIAC CALYPSO, is one of the greatest producers of the daughters of HENGVERVELD DE KOL. As a 3-year-old, she produced, during the hottest weather of July, 23.6 lb. of butter in 7 days. She is one of the ten daughters of HENGVERVELD DE KOL who with first calf produced an average of 17.75 lb. butter in 7 days. Another half-sister has a record of 23.41.

His sire, BERYL WAYNE'S PAUL DE KOL, has over 40 A. R. O. sisters, one of which is AAGGIE CORNUCOPIA PAULINE, the WORLD'S CHAMPION COW (34.31). He is the sire also of SHADYBROOK GERREN PARTHENNA 4TH, who holds the world's record for production under 2 years old, having produced at 1 year, 8 months, in 7 days, 17.86 lb. butter. The three nearest dams of this young bull have records averaging practically 26 lb.

KING ORMSBY FRIEND

This bull is an individual of exceptionally good conformation, fine enough to show in any company, and good enough to be at the head of any herd. His dam, PAULINE DE KOL MUTUAL FRIEND, produced under 2 years old, in an official test, 16.23 lb. of butter in 7 days; and again, as a 3-year-old, has placed to her credit 19.55 lb. She was from DE KOL KONINGEN PAULINE, (23.201), and sired by the youngest son of DE KOL 2D, DE KOL 2D'S MUTUAL PAUL, the youngest bull of the breed having a 25 lb. daughter. KING ORMSBY FRIEND was sired by DUCHESS ORMSBY BUTTER KING. His dam, DUCHESS ORMSBY, made an official record of 24 lb. 4.4 oz., her milk showing 5.44 per cent. of fat.

For the purpose of introducing Holstein blood into the South and proving the profit of grading up our herds, this bull will serve a limited number of pure-bred cows of any breed and good grade cows for \$5 each. Arrangements can be made by mail.

I am prepared to furnish the best pure bred Holstein-Friesian cattle from a single calf to car load lots, every animal guaranteed as represented.

For further information come to Hygeia Farm and receive a cordial welcome, or write

SAMUEL ADAMS ROBINSON, M. D., Prop.
COVESVILLE, Albemarle County, Virginia.



3 FEEDS FOR ONE CENT

My stallions, Dan Patch 1:55, Cresceus 2:02 1/4, Directum 2:06 1/4, Arion 2:07 1/4, Bay Wilkes 2:08 1/4, Buttonwood 2:10 and my one hundred high-class brood mares eat "International Stock Food" every day for over four years and during this time has broken twelve World Records and his physical condition has been marvellous. It will pay you Mares, Colts, Race Horses, Show Horses, Carriage or Coach Horses and Work Horses because it gives more Nerve Force, Endurance and Strength. "International Stock Food" is prepared from finely powdered medicinal Herbs, Seeds and Barks and is fed in tablespoonful amounts as an addition to the regular grain feed. It is equally good and very profitable to use for Horses, Cattle, Fatigued Cattle, Cows, Calves, Hogs, Pigs, Sheep or Lambs, because it Purifies the Blood, Tones Up and Permanently Strengthens the Entire System. Keeps them Healthy and Greatly Aids Digestion and Assimilation so that each animal obtains more nutrition from all grain eaten. In this way it saves grain and will make you a large extra profit. We have thousands of reliable testimonials on file in our office, and every pound of "International Stock Food" is sold by over 125,000 dealers on a Spot Cash Guarantee to refund your money if it ever fails. Constantly used by over two million stockmen throughout the world. If you desire any further information I will be pleased to have you write me.

M. W. SAVAGE, Prop. of
International Stock Food Co.
International Stock Food Farm.

Dan Patch 1:55, The Pacing King, Cresceus 2:02 1/4, The Trotting King, THIS BEAUTIFUL PICTURE IN 6 BRILLIANT COLORS

MAILED TO YOU FREE.

We have just published a large, colored lithograph of the above Photo-Engraving, which shows our World Famous Stallions, Dan Patch 1:55 and Cresceus 2:02 1/4, in an Exciting Contest and at Extreme Speed. The picture is 16 inches by 21 inches and shows both horses in their natural colors and as life-like as if you saw them racing on the track. It is a picture that would sell for \$2.00 if gotten out in a small edition. You can have one of these large and beautiful pictures of the two most valuable harness horse stallions and champions of the world, absolutely free and we will prepay the postage. This picture was made from life and every lover of a great horse should have one.

WRITE FOR ABOVE PICTURE AT ONCE.

1st, Name the paper in which you saw this offer. 2nd, State how much live stock you own or care for and then we will mail the picture promptly. 3rd, Picture will not be mailed unless you give us this information and address.

INTERNATIONAL STOCK FOOD CO., MINNEAPOLIS, MINN., U. S. A.

AFTER EATING "INTERNATIONAL STOCK FOOD" EVERY DAY FOR FOUR YEARS DAN PATCH OPENS THIS SEASON AS FOLLOWS:

First Start, Galesburg, 1:57 1/4.

Third Start, Minnesota State Fair, 1:56 1/4.

Second Start, Dubuque, 1:58.

Fourth Start, Minnesota State Fair, 1:55.

tubes carrying a white, milky juice, which oozes out whenever these ducts are cut or otherwise opened. The seed capsule, when it reaches its full size, contains a very liberal supply of this juice. These capsules we submit to a certain treatment in order to dissolve the ingredients of which this juice is composed. For this purpose we use either water or alcohol. We then employ various chemical reagents to extract the morphine, or other alkaloids contained therein.

"Small experiments," continued Dr. Galloway, "have indicated the practicability of obtaining a high grade of crude morphine in fair quantity from the dried capsules of poppies grown in different parts of the country, but much further experimentation will still be necessary before the success or failure of the plan is demonstrated."

"We have met with a number of set backs recently in our poppy growing, as an experiment field in California was entirely ruined last winter by floods, while the preceding season a

ANGORA GOATS.

A fine herd of one hundred and twenty-five for sale at moderate figures.

Address, "PANTOPS," Charlottesville, Va.

BERKSHIRES

of the most fashionable English strain.
Prices reasonable, Correspondence solicited.
COL. HENRY HOLLYDAY, EASTON, MD.



YOUR WATER PROBLEM SOLVED.

You don't want to be always looking after it or repairing. But you want water always coming. Use the running stream and a

Rife Hydraulic Ram

and you can raise it any height. Cheapest and most satisfactory means of fresh water supply known. No care needed, always going, no repairs. Sold on 30 Days Free Trial. Send for book and investigate.

Rife Engine Co., 2115 Trinity Bldg., New York.

When corresponding with our advertisers, always mention The Southern Planter.

hot wind scorched the plants just when they were in a promising stage. In South Carolina this year the crop suffered from the excessive rains which have visited the East this summer.

"The Asiatic poppy, with which we are experimenting, must not be confused with the garden poppy. The seed capsule of our variety is sometimes three inches in diameter, while the four petals of the flower, if flattened out, measure, at times, twelve inches from tip to tip. Then, too, the blossom quickly fades. In most cases, the petals fall off the same day that the flower comes into bloom. The Asiatic poppy is grown in various parts of Europe and the Orient, and has made a good growth in the United States. In so cold a climate as Vermont, and in the warm sections of the South, it has shown its ability to maintain a vigorous existence. In July and August the plants which attain a height of four or five feet bloom freely and produce in about four or five weeks a good crop of the large capsules characteristic of this species and its varieties.

What these experiments might mean to the United States, should they prove successful, as we have every reason to believe they will, is shown by the fact that our importations in crude opium, in the alkaloids derived from opium, and in poppy seed and the oil expressed from the latter, during the year 1905 were to the value of over a million and a quarter dollars, while opium prepared for smoking purposes had a value a little less. The bulk of the first mentioned amount would remain at home if we were to grow poppies and manufacture our crude morphine, etc., in the United States. Of course, we could not keep people from gathering the green pods and chewing them to obtain the opium, but it should be remembered that it would take a great amount of these capsules to produce any satisfactory quantity of the drug in this way."

Apple Cider and Vinegar.

Apple time, and cider time! Ah, what memories the latter brings up of the full barrel, getting just a little snappy, in boyhood days when our internal capacity was without limit. Then later came the vinegar, in which we were not so deeply interested. The majority of farmers use only windfalls in making cider or cider vinegar. The best practice, however, shows that it is advisable to use only ripe, sound fruit. If the fruit is dirty, it may well be washed, otherwise there is danger of introducing micro organisms into the juice that will interfere with the normal alcoholic and acetic fermentation. For the same reason, cleanliness should also be observed in grinding and pressing the fruit, and in the handling of the juice.

For profit, the pressing should be



Scalp Diseases

Scaly eruptions, scald head, milk crust and all forms of eczema of head or face, yield quickly to the magical influence of Heiskell's Ointment. This ointment allays itching and burning sensations, cools the skin, heals the irritated surfaces.

HEISKELL'S OINTMENT

has half a century of cures back of it. It has been proven in the most obstinate cases. Used with HEISKELL'S MEDICINAL SOAP its healing power is actually astounding. HEISKELL'S BLOOD AND LIVER PILLS should be taken to clean up the liver and make the blood pure. Ointment, 50c, Soap 25c, Pills 75c.

Sold by all druggists or sent by mail.

JOHNSTON, HOLLOWAY & CO., 531 Commerce St., Philadelphia, Pa.

Pulls Stumps or Standing Trees.

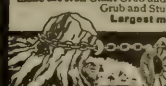

Clears a two-acre circle with one sitting—pulls anything the wire rope will reach; stumps, trees, grubs, rocks, hedges, etc. A man and a boy with one or two horses can run the

COMBINATION STUMP PULLER,

Stump Anchored or Self Anchoring.

A minute and a half is all it takes for the ordinary stump. No heavy chains or rods. Note the strong wire rope with patent coupler—grabs the rope at any point. Does not chafe rope; far ahead of old-style "take-ups." Smallest rope we furnish stands 40,000 lbs. strain. It generates immense power and it's made to stand the strain. We also make the Iron Giant Grub and Stump machine, the I-X-L Grubber and Hawkeye Grub and Stump Machine. Write for free illustrated catalogue, Largest manufacturers of Stump Pullers in the World. Established 1884.

MILNE MFG. CO.,
834 8th St., Monmouth, Ill.

REGISTERED ABERDEEN - LIFE

AT AUCTION

Last Day of State Fair,

RICHMOND, VA., OCTOBER 13, 1906.

These cattle are described on page 755, September issue, Southern Planter. Will be sold absolutely without reserve to the highest bidder.

Briefly, the offering consists of 2 Registered Cows safe in calf to Max of Meadowbrook; 4 extra good Heifers, with calf at foot and 2 to calve this Fall by above Bull; 4 yearling heifers—beauties; 3 strictly top Heifers, 'year old this Fall; also the splendid Bull, Max of Meadowbrook 46270, sired by the Famous Prize winner, Zaire 5th 6054.

Don't miss this sale. Write for any other information you may wish. WOODSIDE STOCK FARM, R. S. Farish, Prop., Charlottesville, Va.

Tell the advertiser where you saw his advertisement.

MORVEN PARK.

The Property of **WESTMORELAND DAVIS, Esq.**

Reg. Dorset Horn Sheep.

Flock headed by Imported Ram, MORVEN'S BEST No. 4132 (C. D. C.), 1st. Prize at English Royal 1904.

We are offering for delivery now, last fall born rams which weighed, without forcing at less than six months of age, from 110 to 130 lbs., and averaging 120 lbs. Fit to head any flock.

Large White Yorkshires.

Registered Pigs for sale. Herd headed by Imported boar HOLYWELL HUDDERSFIELD No. 4850, A. Y. C., 2nd prize at Yorkshire (England) Show, 1904. Only time shown.

All pigs either bred on the place and descendants of, or directly imported from the prize winning herds of England. These pigs are prolific, hardy, and they are economical feeders. They are the bacon breed of England and the coming breed of America.

REG. GUERNSEY CATTLE.

TUBERCULIN TESTED.

Herd headed by bull, IMPORTED TOP NOTCH No. 9023 A. G. C. C. son of Imported Beda. Advanced Register No. 136, official yearly butter record 640 lbs. of butter; assisted by MAINSTAYS GLENWOOD BOY No. 7607 A. G. C. C., son of Jewel of Haddon, Advanced Register No. 92, official yearly record 463 lbs. of butter.

We are offering a bull by Imported Top Notch out of Imported Claremont Ruth IV, Advanced Register No. 130, official yearly record 474 lbs. butter, average test 5.6 per cent. butter fat. Also bull by Imported Top Notch out of Princess Dorothy who has just entered the advanced Registry. This bull on dam's side belongs to the Honoria family and is closely related to Guernsey Champion, 1st. at the St. Louis Exposition. Also other bulls from approved deep milking dams.

ALL STOCK IN FINE CONDITION.

Flocks and herds may be viewed by appointment.

Address

**LIVE STOCK DEPARTMENT, MORVEN PARK,
LEESBURG, LOUDOUN CO., VA.**

done with a power press. With a hand press, only two gallons of juice per bushel of apples could be secured at the Virginia Experiment Station, while with a power press, four gallons were obtained. When possible, the freshly pressed apple juice should be placed in same large receptacle and be allowed to stand a few days before siphoning into barrels. This allows the solid matter held in suspension to settle before barreling. When fresh cider is placed in barrels the alcoholic fermentation is not completed until the end of about six months. Where the cellar temperature is 60 or 70 degrees F., this time can be considerably reduced. It yeast is added to the fresh cider, fermentation can be completed in three months or less. If compressed yeast is used, about one cake to five gallons of cider should be used, after first dissolving the yeast in lukewarm water. When the alcoholic fermentation is completed, the clear portion of the liquid should be drawn off, the barrel rinsed out and the clear liquid put back. Two to four quarts of good vinegar, containing more or less of "Mother," should be added. Stored in a cool cellar, the barrel of liquid will require 21 to 24 months or more to change all the alcohol into acetic acid, but if this barrel be moved into a warm place, as out of doors during the summer, the acetic fermentation may be completed in 15 to 18 months. If the alcoholic fermentation is hastened by the addition of yeast and storage in a warm temperature, and acetic acid favored by the use of a vinegar "starter," as noted above, it is possible to produce good merchantable vinegar in six to twelve months.

To Instruct Farmers in the Uses of Denaturated Alcohol.

Farmers who visit the Jamestown Exposition next year should not fail to see the government exhibit of denaturated or fuel alcohol—alcofuel, as it has been suggested that it be called. The recent legislation removing the duty from this denaturated alcohol was mentioned by President Roosevelt as being one of the three or four most important acts of the late Congress. The exhibit will be in charge of the Department of Agriculture and will show graphically what an immense thing this new industry is or promises to be. The farmer's interest is twofold in alcofuel—first, its manufacture will be made largely from farm crops, and second, it will furnish a very cheap fuel for use whenever any power is required on the farm for the running of small engines, etc.

The government exhibit will include showings of various kinds of internal combustion engines using this fuel. Farmers will learn at the Jamestown Exposition how to save labor in a thousand different ways. They will be shown how they can utilize machinery for sawing wood, chopping stock



"Increase Your Yields" of Grain.

As 20 bushels of wheat takes from the soil approximately 14 pounds of phosphoric acid, 35 pounds of nitrogen and 18 pounds of potash—the necessity of using fertilizers is very plain. Green and stable manure can be sometimes profitably used on wheat, but then they are usually poorly balanced, and on some soils, those very rich in nitrogen, for example, would be positively injurious.

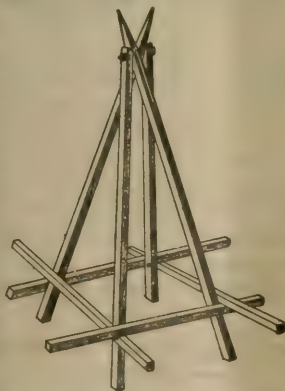
Virginia-Carolina Fertilizers,

on the contrary, can be, and are, adapted in composition and quantity of ingredients to any soil or crop. Those most used, perhaps, contain 8 or 10 per cent. phosphoric acid, 2 or 3 per cent. nitrogen and 2 to 4 per cent. potash. Particularly on some clay soils, these furnish a well-balanced ration for the wheat. On some clay and most sandy lands, however, fully twice this percentage of potash should be used, while many soils need nitrogen. Buy only the high-grade VIRGINIA-CAROLINA FERTILIZERS, and you cannot make a mistake if you seed selection and cultivation are proper. They will "increase your yields per acre."

VIRGINIA-CAROLINA CHEMICAL COMPANY,
SALES OFFICES:

Richmond, Va. Durham, N. C. Baltimore, Md. Norfolk, Va.
Charleston, S. C. Atlanta, Ga. Montgomery, Ala.
Savannah, Ga. Memphis, Tenn. Shreveport, La.

The Bell Hay Curing Rack



solves the problem of making pea-vine hay no matter how heavy the growth or how wet the weather. It is simple and cheap in construction and convenient as a labor saver; it cures hay in almost any weather conditions by interior ventilation; hay does not touch the ground, hence cannot rot or mold and the quality is not injured by rain; it saves labor as you don't have to handle your hay but once. The rack folds up and can be carried easily and stored in small space.

Price \$1 f. o. b. Farm Rights \$10 per 100.
Address, H. E. BELL, Burkeville, Va.
N. & W. and Southern Ry.

An extra heavy fence. Every wire—both strand and stay—No. 9 gauge. Thickly galvanized. Best graduated. We mail free sample for inspection and test. A more substantial, stock resisting, line-drawing fence was never stippled to you.

WE PAY FREIGHT ON 40 ROLLS
Write for book showing 110 styles.
Brown Fence and Wire Co.
Cleveland, Ohio

BROWN FENCE

16c to 35c
Per Rod—Delivered

SAMPLE FREE

Tuleyries Farm Herefords

My sale of Herefords has been postponed. If you wish to see the breeding and quality I have for sale, see my exhibit at the Virginia State Fair, Richmond, October 9-13.

Also pure bred Berkshires and Holsteins

Stock, all ages, both sexes, for sale.

Graham F. Blandy, White Post, Clarke County, Virginia.

feed, pumping water, and many other things. And the farmer's wife can employ machinery for doing her churning, washing, operating her sewing machine, lighting and heating the house, and in many other ways to save labor.

GUY E. MITCHELL.

Augusta Co., Va., July 9, 1906.

I enjoy reading the Southern Planter very much and get a great deal of information out of it.

E. F. HEATWOLE.

ENQUIRERS' COLUMN.

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W. A. Miller & Son,
1016 Main St. Lynchburg, Va.

—DEALERS IN—

Seeds, Fertilizers and Wool.

SEEDS. We sell every kind of seed for field and garden of best quality, and as low as same qualities can be bought in any market.

FERTILIZERS. We sell Fertilizers for every crop, under our own brands. All we have used our High Grade Tobacco Guano, Corn Grower, Wheat and Grass Fertilizers, Pure Raw Bone, and High Grade Acid Phosphate, analyzing from 14 to 16 per cent., pronounce them the best they have used.

WOOL. We buy all the year round, and **PAY THE HIGHEST MARKET PRICES.** Parties wishing to purchase will find it to their interest to see us before buying.

PLANT THE STRING

Save half the work, save seed, save thinning, get uniform stand, better growth and better paying gardens by using the

Israel Seeded String

A practical money maker for gardeners. Each variety seeds properly spaced in tissue paper string. Tissue paper attracts moisture. Write today for free catalog. Sample assortment Vegetable and Flower Seeds, postpaid, 75 cents. Write for beautifully illustrated booklet. Address

ISRAEL SEEDED STRING CO.,

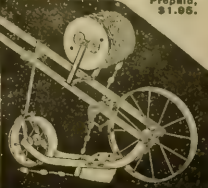
586 Congress Street,

Chicago, Illinois.

Gardener's Assortment

Lettuce, Beet, Radish, Carrot, Onion, Salsify, Sweet Pea, Aster, Bachelor's Button, Echinacea, Helianthus, etc.

FAMILY GARDEN PLANTER, \$1.50.
Prepaid, \$1.95.



THE FREE SEED QUESTION.

Richmond, Va., August 4, 06.

Editor Southern Planter,

Dear Sir: For a number of years the seed trade of the country has opposed the free distribution of common seeds by Congress. It has done so on the ground that it was an unjust interference with a legitimate industry, and because it is a waste of public money. The packet seed trade of this country amounts to 120,000,000 packets per annum, of which the general government gives away 40,000,000 packets. What industry could survive if the government gave away free halt as much as those engaged in the industry sold? We therefore object most strongly to this government competition, giving away what we have to sell to live, and particularly object to it because every one concerned in the growing or selling of seeds contributes his mite to the support of the government and part of our own money is thus expended in ruining our business. The United States government is the only one in the world that gives away anything, and all it thus donates is "free seeds." Nearly five million dollars worth of pumpkin, squash, watermelon, lettuce, turnip, and radish seeds has been distributed by the United States government in these little packets. We think it is time to give the seed trade a rest and that members of Congress seeking to endear themselves to their constituents should appropriate money to give away axes, saws, pocket knives, looking glasses, shoes, bolts or sets of harness or something other than seeds. Let the poor seed merchants have a rest. We think we have earned it.

We also object to this distribution of free seeds on the ground that Congress employs a double subterfuge in alleging that the appropriation is made for the distribution of "rare" and "valuable" seeds, whereas every knows that only the commonest varieties are sent out, such as can be obtained at any corner grocery store. This is no reflection on the Department of Agriculture, for it is an utter impossibility for it to supply forty million packets of "rare and valuable" seeds, and the average Congressman demands quantity that he may remember as many constituents as possible. The other subterfuge is that the appropriation is made under the guise of "assisting agriculture." About one third of the packets go to members of Congress living in the cities, and it is safe to say that not one third of all sent out is ever planted. Even if they were, how is agriculture, on which the country is so dependent, and whose products annually aggregate billions of dollars, to be materially assisted by the distribution of five cent packets of turnip and radish seeds?

We are frank to say that as seedmen, engaged in growing and selling



Fruit Trees 7½c
(Apple and Peach) Other kinds low in proportion.

Why pay two to five prices for all kinds of nursery stock to cover agents' profits and bad debts, when we, by employing no agents and making no bad debts—selling for cash direct to the people at lowest wholesale rates—will save you so much. Twenty-two years' experience, 1,000,000 high-class fruit trees, 50,000,000 strawberry plants. Special bargains in apple trees. Safe and cheap delivery anywhere in U. S. Valuable book on fruit growing free to buyers.

Strawberry Plants
\$1.25 per 1000 in quantities
Write to-day for free catalog. Mention this paper. Address
Dept. E, CONTINENTAL PLANT CO., Kittrell, N. C.

TREES.

**First Class Nursery Stock
of all kinds.**

**WHOLESALE
AND
RETAIL.**

We make a specialty of handling dealers' orders.

ALL STOCK TRUE TO NAME.

Apples,	Nectarines,	Pecans,	Ornamental and
Pears,	Cherry,	Chestnuts,	Shade Trees,
Peach,	Quinces,	Walnuts,	Evergreens,
Plum,	Almonds,	Small Fruits,	Roses, Etc
Apricots,			

CALIFORNIA PRIVET, for Hedging. WRITE FOR CATALOGUE.

AGENTS WANTED.

FRANKLIN DAVIS NURSERY CO., Baltimore, Md.

..ELMWOOD NURSERIES..

—We are growers and offer a fine assortment of—

APPLES, PEACHES, PEARS, CHERRIES, PLUMS, APRICOTS; NECTARINES, GRAPEVINES in large assortments, GOOSEBERRIES, CURRANTS, STRAWBERRIES, HORSE-RADISH, ASPARAGUS, DEWBERRIES, and an extra lot Raspberries. Splendid assortment ORNAMENTAL and SHADE TREES. ORNAMENTAL SHRUBS and HEDGE PLANTS.

EGGS fro B. P. ROCK and BROWN LEGHORN FOWLS at \$1.00 per 13. Also, a few pullets and cockerels of these breeds at \$1.00 each for immediate delivery. Write for catalogue to

J. B. WATKINS & BRO., MIDLOTHIAN, VA.

seed, we strenuously object to the government giving away seed in competition with us, and as citizens and tax-payers, we object to this waste of the public money, to the collection of which we contribute our share.

If, therefore, any one cares to help us by informing the Senators from their States, and the members of Congress from their districts, that they are opposed to a further waste of public money in this manner, we shall be deeply grateful.

In closing, we beg to express our thanks to the daily, weekly and agricultural press of the country, which has, without an important exception, condemned this appropriation in the strongest terms.

(Signed) HENRY W. WOOD,
President American Seed Trade Association.

HIGH CARBON STEEL WIRE FENCE.

Farm fences, like farm buildings, should be permanent improvements.

You don't buy the cheapest lumber for your farm buildings. Neither should you buy the cheapest wire for your farm fences.

The best quality of wire, firmly and securely woven, well stretched on securely anchored end posts, makes a fence that will last for years without repair—that will outlast the posts.

Quality of wire first and then a practical weave make Page Fence the farmer's fence.

Page Fences have been on the market for twenty years, and the first one sold is still a good fence.

Just how they are made is explained in a book which is sent to any one who writes for it to the

PAGE WOVEN WIRE FENCE CO.,
Box 511, Adrian, Mich.

OVERBROOK FARM.

Mr. G. D. Buddecke, proprietor of Overbrook Farm, Baltimore, writes us that he has recently imported a fine lot of improved White Yorkshire hogs from the well known breeding firm of D. C. Platt & Son of Ontario. The importation includes pigs which were bred by Platt from prize winners at Toronto both this and last year. The herd boar at Overbrook is sired by an English boar and out of a sow from Lord Roseberry's herd. As the Platt herd is one of the greatest prize winners in the country, it will be seen that Overbrook Farm is offering stuff that will go right after the blue ribbons wherever shown.

Augusta Co., Va., July 12, 1905.

I look for the Southern Planter monthly as a letter of advice and encouragement in any farm work

R. M. PORTER.

Mention The Southern Planter.

MILLIONS OF TREES!

OVER 1,000 ACRES IN NURSERY STOCK.

Just think of it! Not necessarily of the great number of trees nor the extent of the acreage, but of the splendid possibilities of securing right here an unlimited assortment of an infinite variety of Nursery Stock.

PEACHES, APPLES, PEARs, PLUMs, CHERRY, QUINCE.

CURRENTS, GRAPES, STRAWBERRIES, AS-

PARAGUS, ROSES, SHRUBS, ETC.

We will take pleasure in selecting for you the very best stock of any varieties, a list of trees that will produce a succession of delicious fruit throughout the season. We will also arrange assortments for large or small orchards, giving the purchaser the benefit of our long and large experience. Don't hesitate to write us your want or what you contemplate doing in the fruit or nursery line. We know we can please you. Just because yours may be a small order is NOT THE REASON you should send it to us. It's the small orders that have made us such big nurserymen.

All stock guaranteed healthy, vigorous and strictly first-class.

Come and see it for yourself.

SEND FOR OUR NEW FALL CATALOGUE.

J. G. HARRISON & SONS,

BERLIN - - - - - MD.

W. T. HOOD & CO., OLD DOMINION NURSERIES, RICHMOND, VIRGINIA.

WHOLESALE AND RETAIL GROWERS OF

High Grade Nursery Stock

Descriptive catalogue and price list on application.

Office: Chamberlayne & Renole Ave. Nurseries: Henrico and Hanover Counties.

PLANTING THE SEEDED STRING.

An advertisement in this issue presents a novelty which bids fair to become an important factor with both home and market gardeners. It is the seeded string, a method of planting vegetable and flower seeds perfected by the Israel Seeded String Co., of Chicago.

The illustration in the add sufficiently explains the planter. The seeded string is, as its name implies, a string (tissue paper) with garden and flower seeds embodied in it, each variety spaced just the right distance apart for planting. Instead of planting the seeds loose, hit or miss, more or less irregularly in the row, you simply plant the string. The string quickly "draws damp" and germination is hastened.

Among the advantages of planting by this new method, the following might be named: 1. Exactness in getting the seeds all just the right distance apart. 2, saving of seed. 3, saving the labor of thinning out and the incidental injury to plants left standing. 4, planting in straight lines, making close cultivation with plow or wheel hoe possible.

There is quite a variety of seeds that have been put up by the Israel people for this method of planting. A good list is mentioned in the advertisement. We have the assurance of the company that only the best, plumpest, freshest seeds of any kind are used. This can be easily verified, of course, at the time seeds are bought. This being the case, we know of no reason why this new method of planting should not become widely popular with our readers. A booklet, which may be had free by writing the company at the address given in their advertisement, gives all particulars.

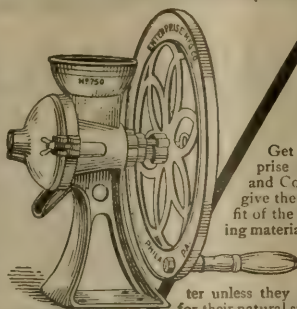
CAUSTIC BALSAM FOR SPAVIN AND RINGBONE.

Casselman, Ont., Feb. 6, 1905.
The Lawrence-Williams Co., Cleveland, Ohio:

I have used your Gombault's Caustic Balsam for spavin, ringbone and a good many other ailments, and found it very good for all. ALF LALONDE.

CATTLE STANCHIONS.

Mr. W. B. Crumb, Forestville, Conn., who has been advertising his Warriner Chain Hanging Stanchion with us for a number of years, sends us a list of testimonials from users. Among them we notice a strong letter from Mr. H. S. Peyton, Supt. of Dairy Dept. of Sweetbrier Institute, Amherst, Va. Any one contemplating the purchase of stanchions should write for this sheet of testimonials, and they will be doubtless convinced of the strength and durability of the Warriner.



No. 750
Price \$8.50
Weight 60 lbs.
Capacity 1½ bu.
Corn per hour.

For
Dry Bones
Only

Help the Hens

Get an Enterprise Bone, Shell and Corn Mill, and give the hens the benefit of the finest egg making material, much of which would otherwise go to waste. Hens cannot lay in winter unless they have some substitute for their natural summer food. Furnish cracked grain, and a liberal supply of ground bone, shell, etc., and the hens will do the rest.

ENTERPRISE

Bone, Shell and Corn Mill

An all year round convenience to poultrymen and farmers. Easy running, durable, and never out of order. Useful for making bone meal fertilizer as well as grinding poultry food. Look for the name "Enterprise." Write for the "Enterprise Housekeeper," a book of 200 choice recipes and kitchen helps. Sent free.

THE ENTERPRISE MFG. CO. OF PA., 231 Dauphin St., Philadelphia, Pa.

"Paints that stay Painted."

DO YOU USE PAINT?

Most of the world does. There are good and bad in PAINTS. But unless you are thoroughly acquainted with the PAINT industry, it is hard for you to tell the good from the bad. JNO. W. ATKINSON & CO., sell reliable PAINTS and you can depend upon what you buy from them. Their prices are as low as possible, consistent with good quality. Is it not best to buy where you know your purchase will be satisfactory? Write for PAINT prices and Color Cards to

JOHN W. ATKINSON & CO.,
Richmond, Va.

CHARTERED 1870.

Merchants National Bank,

OF RICHMOND, VIRGINIA.

Capital, - - - - - \$200,000.00.

Surplus and Undivided Profits, - - \$740,000.

Depository of the United States, State of Virginia, City of Richmond.

Being the largest depository for banks between Baltimore and New Orleans, we offer superior facilities for direct and quick collections. Accounts solicited.

JOHN P. BRANCH, Pres. JOHN K. BRANCH, Vice-Pres. JOHN F. GLENN, Vice-Pres.
THOS. B. MCADAMS, Cashier. Assistant Cashiers J. E. PERDUE, GEO. H. KEESE.

Three Per Cent. Interest Allowed in Savings Department.

Mica Axle Grease



Makes the Load Lighter

An ounce of grease is sometimes the ONLY difference between profit and loss on a day's teaming. YOU KNOW you can't afford a dry axle—do you know as well that Mica Axle Grease is the only lubricant you can afford? Mica Axle Grease is the most economical lubricant, because it ALONE possesses high lubricating property, great adhesive power, and long-wearing quality. Hence, the longest profitable use of your outfit is to be had, ONLY when the lubricant is Mica Axle Grease.

Mica Axle Grease contains powdered mica. This forms a smooth hard surface on the axle, and reduces friction, while a specially prepared mineral grease forms an effective cushioning body between axle and box. Mica Axle Grease wears best and longest—one greasing does for a week's teaming. Mica Axle Grease saves horse power, consequently saves feed. Mica Axle Grease is the BEST LUBRICANT IN THE WORLD—use it and draw a double load. If your dealer does not keep Mica Axle Grease we will tell you one who does.



STANDARD OIL COMPANY.

THE SOUTHERN VEHICLE USER.

The prosperous condition of the South is going to permit vehicle users to buy new rigs.

They will want good ones, too, for there isn't a man in any part of the country that buys better goods than the Southern man when he has good crops.

Such readers will be interested in the liberal offer made by the Anderton Mfg. Co., Cincinnati, Ohio, on buggies, surreys, runabouts, spring wagons, harness, etc. Their big 110 page catalogue, which tells all about their "no money in advance" offer, "two years' approval test" and "\$25,000 bank bond" protection, will be mailed free to any reader of the Southern Planter.

When writing, be sure to say you are a reader of this paper.

A VALUABLE BOOK FREE.

Mr. H. C. Phelps, president of the Ohio Carriage Mfg. Co., Station A-10, Cincinnati, Ohio, who is the originator of the famous free trial plan of selling vehicles from factory to consumer, has just published a remarkable book giving the factory secrets of buggy making. He has sent out over 150,000 of these valuable books to interested people, and will gladly send you one free if you are interested to learn how buggies are made. Write Mr. Phelps for one of his famous books to-day, on a postal card and you will get it free by return mail. Write him at the above address.

GOLDEN GLEN FARM.

Among the new advertisements in this issue is that of Messrs. S. R. Quick & Sons, Gosport, Ind. This firm is noted for its splendid herd of Duroc Jersey hogs. It has some of the best blood of the breed and has quite a lot of stock of all ages for sale. The offering includes Shropshire sheep and poultry, and bargains can be had in both. By the way, Dr. Quick of this firm is judging at the Lynchburg, Va. Fair this year.

Sevier Co., Tenn., June 11, 1906.

The Southern Planter is a welcome guest at our home and its pages are eagerly read. CHAS. J. JOHNSON.

"A Kalamazoo Direct to You"



Kalamazoo are fuel savers,—
They last a lifetime—
Economical in all respects—
They are low in price and high in quality.—
They are easily operated and quickly set up and made ready for business.—
Buy from the actual manufacturer.—
Your money returned if everything is not exactly as represented.—
You keep in your own pocket the dealers' and jobbers' profits when you buy a Kalamazoo.

WE PAY THE FREIGHT.

We want to prove to you that you cannot buy a better stove or range than the Kalamazoo, at any price.

We want to show you *how* and *why* you save from 20% to 40% in buying direct from our factory at factory prices. If you think \$5, or \$10, or \$40, worth saving

Send Postal for Catalogue No. 400

ROYAL STEEL RANGE

For All Kinds of Fuel.

Examine our complete line of stoves and ranges for all kinds of fuel. Note the high quality; compare our prices with others, and then decide to buy from actual manufacturers and save all middlemen's profits. Catalog shows 267 styles and sizes for all kinds of fuel. Write now. Sold on 30 Days Approval Test.

Kalamazoo Stove Co., Manufacturers, Kalamazoo, Mich.

All Kalamazoo Cook Stoves and Ranges are fitted with patent oven thermometer which makes baking and roasting easy. All stoves blacked, polished and ready for immediate use when you receive them.



OAK STOVE HEATER.
For All Kinds of Fuel



Oven
Thermometer

Richmond, Fredericksburg & Potomac R. R. and Washington Southern Railway

The Double-Track
Link

Connecting the

Atlantic Coast Line Railroad
Baltimore & Ohio Railroad
Chesapeake & Ohio Railway
Pennsylvania Railroad
Seaboard Air Line Railway
Southern Railway

Between All Points
via Richmond,
Virginia, and
Washington, D. C.



W. P. Taylor, Traffic Manager

The Gateway
between the
North and the South

Fast Mail
Passenger
Express and
Freight Route

Tell the advertiser where you saw his advertisement.

I Am the Paint Man

EIGHT-YEAR GUARANTEE—TWO GALLONS FREE TO TRY—6 MONTHS' TIME TO PAY

MY PAINT is a new paint—made in a new way—sold on a new plan, it is unique.

My paint is unlike any other paint in the world.

It is made especially for you after your order is received, and I pack your order in hermetically sealed cans.

I ship my thick pigment, which is double strength, freshly ground, in separate cans, and in another can I ship the pure, oil process linseed Oil—two kind 7 in used & buy years ago. Any child can stir them together.

This is the only possible way that you can get fresh paint for your work, and fresh paint is the only good paint.

I sell my **O. L. Chase Made-to-Order Paint** direct from my factory to you at a very low factory price.

You pay no paint dealer or middle man's profits. It is the most economical good paint made, for first cost, and because of the extraordinarily long wear, it reduces the average of your painting bills at least fifty per cent.

I pay all freight on six gallons or over. I allow you to try the whole

order to paint your buildings. At any you use it, stand off and look at it. If it is not entirely satisfactory ask as represented in every way, the paint will be yours free.

No other paint manufacturer ever made such a liberal offer, and I make it because I manufacture the best paint ever put on the market.

I go even further. I will send my paint on six months' time to responsible people if desired. This way you may in time to test of its value.

I make of my agreement for quality. I also put a guarantee for eight years, the longest ever put upon a paint, and I back of that is my \$20,000 bond.

Before buying paint, be sure and ask for my paint book. It will not cost you a cent. It is the finest paint book ever issued. It tells the whole of my paint story in the most convincing and common sense argument, and with a color by samples of all colors to choose from. Do you see, therefore, I will be glad to forward you the booklet, with a copy of my written guarantee, etc.

Yours truly,
O. L. CHASE, The Paint Man

721 S Olive Street, St. Louis, Mo.



O. L. Chase

Virginia State Fair

At The New Fair Grounds.

Richmond, Virginia,

October 9-13, 1906.

THE VIRGINIA STATE FAIR ASSOCIATION takes pleasure in announcing that the plans and arrangements for the Fair are now complete and that it will be the greatest Fair ever held in the South.

THE MOST LIBERAL PREMIUMS ever offered at a Southern Fair will be hung up for competition. A first class race track is now completed with a commodious grand stand. The buildings comprise halls for the exhibition of Machinery, Farm Products, fine arts, and ample stable, stall and pen accommodations for all classes of stock.

The main features of the Fair will be strictly agricultural and in the interest of live stock breeders, but there is ample provision made for other amusements of high character.

A GREAT WEEK OF LIVE STOCK EXHIBIT.

The management of the State Fair realizing the importance of the live stock industry of the State of Virginia, intends that the State Fair shall be devoted largely to the interest of this important staple of the State. Virginia is naturally favored, and should be one of the great live stock states of this country. Virginia live stock, dairy herds and fancy stock of all kinds are universally admitted to be of the highest standard, and the Virginia State Fair Association intends to use every means in its power to assist this industry and to advertise to the world the excellence of Virginia-bred stock, and hopes to hold an auction sale of the live stock on one day of the Fair.

There will be 5 days of racing, trotting, pacing and steeple-chasing. \$7 000 in purses to winners of track events. Entries from the crack racing stables of the whole country.

General exhibits include the most complete list of agricultural, dairy products, farm products and manufactures ever gotten together in this State.

A Midway with every kind of amusement usually found at up-to-date resorts.

The only air-ship ever brought to Virginia will be on daily exhibition.

Reduced rates have been obtained on all Railroads entering the City.

The Fair Ground is located directly on Railroad and Street Car Lines, with ample facilities for the quick handling of great crowds of people.

BREEDING MORGAN HORSES.

Early in the last century New England in general and Vermont in particular were famous for their Morgan horses. These horses were small, but well built, compact, and very good roadsters, with powers of endurance little short of remarkable. From Vermont they were distributed over the entire United States and over a considerable portion or Canada, the blood entering into the light harness stock of both countries and having an effect of great value. The principal effect was the endurance and stamina which it gave. With few exceptions it did not produce extreme speed. For this reason the passion for speed in the light horse, at all costs, caused Morgan breeders to neglect conformation and quality, and even that stamina for continuous travel for long distances for which the Morgan was noted. The small size of the Morgans was also a fault when market requirements were considered. The result was that Morgan mares were mated with standard-bred stallions of other strains to get speed and increase the size, and the Morgan type was very largely bred out. These standard-bred horses were not of the Morgan type, and in many cases they were not desirable individuals for breeding purposes. Even in Vermont the effects of these crosses are found on every hand. In the southern part of the State it is hard to find horses showing the Morgan type, but farther north they are more common.

Believing that the Morgan characteristics were too valuable to the horse-breeding industry to be lost, the Bureau of Animal Industry of the Department of Agriculture has established a stud in cooperation with the Vermont Experiment Station to revive interest in the Morgan breed. The type selected is that of the old Morgan, with size and quality. With increased size the Morgan horse will answer the requirements of the market for light horses and will be a profitable horse for farmers to raise.

Nine mares and two fillies were bought in June. They are uniform in type, with full-made bodies, fine heads and necks, full hind quarters, good



DOLLARS

ON THE WIRE



The Telephone Saved Him \$300.

Mr. FARMER.

A full Purse and a Telephone go Hand in Hand.

Be up with the Times; Catch the Market Right, Then SELL.

You Need It.

Every Farmer Needs a Phone.

Time and Money Saver.

Costs But a Trifle.

A writer in the Chicago Tribune tells of a cattle buyer who drove into the yard of a farmer about 50 miles from Chicago the other day and made an offer for all the cattle and pigs on hand, delivery to be made at once. The offer seemed a good one, but before closing the farmer said he would speak to his wife. Going to the house he asked his wife to call up a Chicago commission house by telephone. In less than two minutes he was in communication with Chicago and was informed of a rise in prices and advised what a good offer would be at that moment. Within five minutes he closed a deal with the buyer at prices which paid him \$300 more than the first offer.

One Advance Tip on the Market May Mean a Profit More Than Enough to Pay For a 'Phone For Life.

In Case of Accident or Sickness, the 'Phone is the quickest of All Messengers. It Will Pay You to Think This Over.

The "WESTERN" Telephone is simplicity itself. Nothing complicated. Every part is easily gotten at. NEVER OUT OF ORDER. The very best money will buy.

WESTERN TELEPHONES ARE SOLD ON MERIT.

WITH A POSITIVE GUARANTEE. MONEY BACK INCLUDING FREIGHT BOTH WAYS, IF NOT IN EVERY WAY SATISFACTORY. Perhaps your neighbor has a "WESTERN" 'Phone; ask him about it. Any way, send your name, postal will do, for Illustrated Booklet and Catalog on farm phones. Interesting, instructive, They tell all about them, what they cost, how to put them up, etc. Send for these valuable Books to-day and learn how others are making money by using a 'phone. Send for the FREE Telephone Books to-day.

Address,

WESTERN TELEPHONE MANUFACTURING CO.,

73 W. Jackson Boulevard, Chicago, Ill.

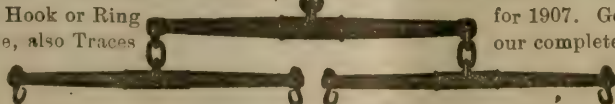
ESTABLISHED 1893.

The Pioneer, Independent Factory Not controlled or owned by any Trust

The Everlasting Tubular Steel Plow Doubletrees.

Guaranteed not to Break or Bend. Send for Our Number 8 Catalogue

Furnished with Hook or Ring
For Plow Muzzle, also Traces



for 1907. Get acquainted with our complete line. Their use spells economy.

ABOVE PATTERN No. 105 MADE IN THREE SIZES

We manufacture a complete line of Doubletrees, Singletrees, and Neck Yokes of every description. All dealers should handle them ask yours for them and take no other.

Pittsburg Tubular Steel Whiffletree Company Sole Manufacturers,
PITTSBURG - - PENNSYLVANIA.

legs and feet, and abundant quality. Seven mares and the two fillies were purchased in Vermont and two mares in Kentucky. Those bought in Vermont are by such sires as General Gates, Bob Morgan, Young Titan Allen (a full brother in blood of Daniel Lambert), Denning Allen, Rocky Mountain, and Gillig. The Kentucky mares are by Harrison Chief, out of Morgan mares, and are in foal to the saddle stallion Highland Denmark, a horse of splendid conformation and quality and an excellent stock getter. Some of the Vermont mares were in foal at the time of purchase. Those not in foal will be bred to the Morgan stallions General Gates, Frank Allen, and Rex. A stallion will not be purchased at present, as sufficient funds are not available. The introduction of Harrison Chief and other saddle blood was thought desirable on account of the great effect that the blood has had on the quality of the harness horses for which Kentucky is famous.

These mares were bought by a board composed of Prof. C. F. Curtiss, Director of the Iowa Experiment Station; Mr. Cassius Peck, of the Vermont Experiment Station, and Mr. George M. Rommel, Animal Husbandman of the Bureau of Animal Industry. In addition to the characteristics mentioned above, the board insisted on pure trotting action and discriminated sharply against pacing or any tendency to mix in gaits. Pacing strains in the pedigrees were also avoided as far as possible.

The mares are temporarily on a farm rented by the Vermont Experiment Station near Burlington and will be moved to the college farm as soon as it is fitted up. A barn has been remodeled and is very well adapted to the purpose for which it is to be used. Selection of type will be rigidly practiced and undesirable animals culled out from time to time. Mr. W. F. Hammond has been appointed to conduct the work at the experiment station. Mr. Hammond has had a lifelong experience in horse breeding in Vermont and is descended from the Hammonds who developed the Vermont Merino sheep.

JONES NURSERY CO.

This firm, located at Woodlawn, Va., reports a large increase in business this season, which attests the value of its stock and satisfaction at its methods of doing business. See advertisement in this issue.

Loudoun Co., Va., July 7, 1906.

I have been reading the Southern Planter for many years. It is better now than ever and I would not like to miss a single number. W. C. BENTON.

EUREKA Harness

Oil
Keeps
the
Harness
Soft
and
Strong

For preserving the strength and increasing the life of harness
Eureka Harness Oil has no equal. Superior to other brands because free from acid and will not become rancid. Penetrates the leather and makes it weather-proof, sweat-proof, soft, strong and durable. Makes old harness look like new. Prevents rot. Gives a glossy black finish.

Boston Coach Axle Oil makes easy running wheels. Reduces friction to an absolute minimum. Better and more economical than castor oil. Will not gum or corrode. For use on carriages, cabs, buggies.

Sold everywhere.

**STANDARD
OIL CO.**

Farming Pays

handsome dividends when the farmer takes advantage of

Labor Saving

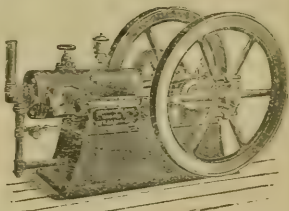
Machinery.

Gasoline Engines,
Wood Saws,
Wind Mills, Pumps,
Feed Cookers, Wire Fences

all save labor. Let us quote you.

Sydnor Pump & Well Co., Inc.,

Dept. B. Richmond, Va.



DON'T BUY GASOLINE ENGINES UNTIL YOU INVESTIGATE. "THE MASTER WORKMAN" is the only gasoline engine, with greater durability. Gas alcohol engine, superior to any one-cylinder engine. It is the only engine that can be used for power. Its design and build are such that of any engine of the same size, it will give the most power. It is a combination portable, stationary or traction engine. See for Catalogue. THE TEMPLE PUMP CO., Mrs. Meagher and 15th St., Chicago. THIS IS OUR FIFTY-THIRD YEAR.

N. R. SAVAGE & SON,
OLD RELIABLE SEED FIRM,
 ESTABLISHED IN 1880.
 WE MAKE A SPECIALTY OF HIGH GRADE
FIELD AND GRASS SEED.

Keep constantly on hand a large and carefully selected stock. We sell the purest and best seed grain and grass seed grown in this country. Guarantee quality as good and prices as reasonable as any other house in the trade. Write for prices.

We are also large buyers of home grown seed grain and grass seeds. Send samples and we will make you offer delivered at your railroad station.

N. R. SAVAGE & SON, RICHMOND, VIRGINIA.

**THE U. S. ARMY TRANSPORT
 "SHERIDAN."**

The tidings of the loss of the army transport "Sheridan," off the reefs of Honolulu, send a pang through the heart of one who has recently crossed on her from Manila, and now, after spending five weeks on the Pacific aboard her, has the same affection for her as for an old friend.

When I first saw her, she was lying in Manila bay, waiting for the regiment she was to bring back to the States, a pretty sight in her gleaming white paint, with red, white and blue bands on her funnel, surrounding the American eagle.

Like other ships pressed into service since our occupation of the Philippines, the Sheridan is an old Atlantic cattle boat of 4,000 tons displacement, remodelled to fit new requirements, and capable of carrying 1,000 souls.

When sailing day came, two battalions of the regiment were boarded on aer, ready to leave and still no news came from the first battalion, due from the Southern Islands, to join the rest. The pilot strained his eyes for a sign of the "Liscum" bringing them up, but no token came, and we anchored off Manila in full view of the lights of the Luneta, whence the strains of the Constabulary band came softly over the water. As we sat at breakfast next day, word was brought to the colonel that the "Liscum" had been turned over on a coral reef on the coast of Luzon at 4 o'clock in the morning, when nine miles out of her course. The coral held firm, and the first battalion had clung there to the ship's rigging. The signals of distress brought them relief from a coast guard boat, which was passing. It brought most of the passengers up to Manila, leaving a small detail of men under one officer to look after the baggage. They were soon brought aboard,

**RUBEROID
 ROOFING**

**STANDARD FOR
 14 YEARS.**

The oldest prepared roofing on the market, and the first Ruberoid Roofs laid, many years ago, are still giving satisfactory service under the severest climatic and atmospheric conditions.

Contains no tar or paper; will not melt, or tear. Acid fumes will not injure it.

Outlasts metal or shingles. Any handy man can apply it.

There is only one Ruberoid Roofing, and we sell it. You can verify its genuineness by the name on the label and on the under side of every length of Ruberoid Roofing. Send for samples and booklet.

A large stock of Corrugated and V. Crimp Roofing always on hand.

Southern Railway Supply Co.,
 1323 East Main Street,
 RICHMOND, VA.



Benthall Peanut Picker.

A New Invention for Picking Peanuts.

Warranted to pick Peanuts (not thresh them) without breaking the hulls or ruining the stems.

Built in Two Styles, Horse and Steam or Gasoline Power.

This machine is the result of several years experimenting and patient effort to produce this splendid labor-saving device and is well nigh perfect. It is strongly constructed and made under our own personal supervision right here in our own foundry and shops. It will do its work rapidly and thoroughly; users tell us that they have picked from 60 to 100 bags per day under favorable conditions.

Write us about it today. You cannot, under present labor conditions, afford to be without this machine.

BENTHALL MACHINE CO. INC. SUFFOLK, VIRGINIA.

LET US SEND YOU OUR Fall Grocery Price List.

IT POINTS THE WAY TO ECONOMICAL GROCERY BUYING. IT SOLVES THE PROBLEM OF WHAT AND WHERE TO BUY. HERE ARE A FEW PRICES TAKEN AT RANDOM FROM THE LIST.

Pillsbury Flour, per bbl.....	\$ 5.25	Bran, per cwt.....	\$ 1.05	Old Geneva Gin.....	2.00 per gal.
Gold Medal Flour, per bbl.....	5.25	Ship Stuff, per cwt.....	1.15	London Dock Gin.....	2.50 " "
Dunlop Flour, per bbl.....	4.50	Timothy Hay, per cwt.....	1.00	Five yr. old Gibson	Whiskey.....
Obelisk Flour, per bbl.....	4.50	Clover Hay, per cwt.....	.85	Five yr. old Moore's	Whiskey.....
Daisy Flour, per bbl.....	4.90	Coarse Meal, per cwt.....	1.40	Corn Whiskey.....	3.00 " "
Best Water Ground Meal, bu....	.75	Corn and Oat Chop, per cwt....	1.15	Five yr. old Star Rye	Whiskey.....
New Irish Potatoes, per bu....	.90	Straw, per cwt.....	.60	Five yr. old Keystone	Whiskey.....
Gran. Sugar, lb.....	.05	Shucks, per cwt.....	.60	Three yr. old Excelsior	Whiskey.....
Arbuckle's Coffee, lb.....	.17	Molasses Feed, per cwt.....	1.20	Two yr. old Old Capitol	Whiskey.....
Pure Lard, lb.....	.12	Corn, Oats & Wheat sacks, extra	.05	Five yr. old Virginia	Mountain Whiskey....
Good Lard, lb.....	.10	Peach Brandy.....	\$2.50 per gal.	Five yr. old North Caro-	lina Corn Whiskey...
Best Salt Pork, lb.....	.12	Fine Catawba Wine... .50 " "		Three yr. old North Caro-	lina Corn Whiskey...
Good Salt Pork, lb.....	.08	Fine Blackberry Wine.. .60 " "		Three yr. old North Caro-	lina Corn Whiskey...
Cut Herring, doz.....	.10	California Port Wine... 2.00 " "		Three yr. old North Caro-	lina Corn Whiskey...
Best Cheese.....	.17	Good Port Wine..... .60 " "		Three yr. old North Caro-	lina Corn Whiskey...
Large Can Tomatoes.....3 for	.25	California Sherry Wine 1.00 " "		Three yr. old North Caro-	lina Corn Whiskey...
100 lb. Sack Salt,.....	.50	Imported Sherry Wine.. 3.00 " "		Three yr. old North Caro-	lina Corn Whiskey...
Rock Salt, lb.....	.01	Imported Port Wine.... 3.00 " "		Jugs, free.	
Corn, per bu.....	.65				
Oats.....	.45				
Chicken Wheat per bu.....	.90				
Small Cans Tomatoes.....	.07				

Prices subject to market changes; orders promptly filled and shipped; if in a hurry, phone your order. Remember, we are wholesale as well as retail dealers in groceries, feed, wines and liquors. If you don't see what you want, write for a complete price list.

J. S. MOORE'S SONS, INC., 18th and Main Streets Richmond, Va.

ROCKBRIDGE PEERLESS PREPARED AGRICULTURAL LIME

Process Patented August 13, 1901.

Packed in 50 lb. Sack—Easy to Handle.

Can be Drilled With the Seed.

More Efficacious Than Air-Slaked Lime.

Address **ROCKBRIDGE LIME AND STONE CO., Lexington, Va.**

looking none the worse for the horrible experience, which even the officers' wives and children had borne bravely.

At last the Sheridan sailed the pennant, "Homeward Bound," a beautiful sight to which has done overtime in the islands, and we steamed down the bay to the quarantine station at Merivales. There all the company was thoroughly disinfected, and the soldiers had to take antiseptic baths before being allowed to embark for the home port. We were held over still a day, to wait for the baggage of the "Liscum," and explored the surrounding country, though we did not venture far into the wilds, for fear of an ambush.

The native village was quite, attractive, with its Nipo shacks, which are so lightly built they could scarcely resist one high wind. We tried to find here native products to buy as souvenirs, something either woven or carved, but in vain. We consoled ourselves by visiting a native school taught by a Filipino, entirely in English. He was having a geography lesson, and asked the class in high staccato, what is the climate of these islands? Is it hot or is it cold? The first boy answered glibly, "Cold." The next "Cold," and so on throughout the entire school, to whom the words hot and cold had little meaning. In the meantime, we stood at the windows, nearly suffocated from heat, and the teacher nearly dissolved from rage.

Our first day at Ilo was a most uncomfortable one. We lay in our berths twenty-four hours dead to the world, while the Sheridan rolled and pitched on the deep. The second day we skirted the green shores of Formosa, and saw the tea plantations over the hills. Next we called in port at Nagasaki, Japan, situated at the end of the beautiful inland sea, and spent two days here, coaling ship.

The great Mitsui Company owns coal mines here, and Nagasaki is, in consequence, the finest coaling station in the Orient. Entering the magnificent harbor by a narrow inlet until only one-fourth of a mile wide, we found the ships of all nations riding its waters—battleships, ocean liners,

—THE NEW—

AMERICAN SAW MILL

VARIABLE FRICTION FEED

Hotset Set Works, Quick Recorder, Duplex Steel Dogs, Strong, ACCURATE AND RELIABLE.

Best Material and Workmanship. LIGHT RUNNING requires Little Power, Simple Easy to Handle, Won't Get Out of Order.

\$155.00 CASH
buys it on the cars at factory complete without Saw. Freight very low.

Warranted to cut 2000 ft. per day with 4 H. P. engine. Seven other sizes made. Also Edgers, Trimmers, Shingle Machines, Lath Mills, Rip and Cut-Off Saws, Cord Wood Saws, and Feed Mills. Catalogue sent free.

Rowe, Mass., Oct. 24, 1905—I have a No. 1 American Saw Mill and I send you an order for another just like it. I run it with my 8 H. P. portable gasoline engine; have sawed 3000 ft. of lumber in 10 hours with it without any trouble. I use a 45 inch saw.

Your truly, Bradley C. Newell.

AMERICAN SAW MILL MACHINERY CO., 137 Hope St., Hackettstown N. J. N. Y., Office.
636 Engineering Bldg. Agents in Richmond, Norfolk, Lynchburg and Charlottesville, Va.

THE WATT FLOW CO., General Agents, Richmond, Va.

Power That Counts.



Nothing can take the place of steam. It never goes on a strike; dependable under all conditions; power in abundance; any sort of fuel. Cheapest, safest, surest, best.

LEFFEL Steam Engines

adapt the old reliable stand-by power to farmers' and planters' use. Numerous small sizes. Types that meet requirements—Upright, Horizontal, Portable, on Skids, etc. Consult your interests by writing us before buying power. Send for book of information.

James Leffel & Co., Box 183, Springfield, Ohio.



and merchant marine. Two Russian cruisers were in port, carrying 1,000 released prisoners home.

Scarce had we cast anchor when our boat was surrounded by tenders and lighters of coal. Staging was built from them to the ship's side. Men went below in the hold to trim the coal; women forming lines, handed it

up in baskets containing ten pounds each, tossing them back as soon as empty to be refilled by the children below—all laughing and chattering together.

To avoid the dirt of coaling, we spent most of our time ashore at Nagasaki in the bazaars and tea houses, and visiting the tortoise-shell shops,

which is the specialty of the place.

The War Department has established a depot quartermaster's department here in the Nagasaki Hotel, in charge of an army officer, who looked after us well.

On the night of sailing the regiment was given a hop at the hotel.

When we left Japan, we settled down quietly to nautical life. The weather was clear and fine, and just cold enough to make wraps pleasant in the evening. Though we had a hard wind on during the entire passage, the Sheridan did not have any seasick motion. She was in charge of the usual navigating officer, and a quartermaster captain. Full military discipline was maintained from Revell at four in the morning, through company breakfast, guard mount, drill and inspection to saluting the flag at the sunset gun. Thus the soldiers were kept in good condition, and did not feel the monotony of the long sea trip. They slept in hammocks on the lower deck, row over row, and were dreadfully cramped, but always good rations. The chaplain of the regiment, besides conducting services twice on Sunday, both for officers and men, spent much time among the men during the week, helping to entertain and interest them.

One day we visited the men and saw the dinner cooking in huge steam boilers. They had good, abundant fare—

soup, beef, vegetables, pie and coffee for dinner. The regiment band was along, and we enjoyed daily concerts from it, either in the afternoon or evening, as well as much good music from talent on board. A bridge club, fudge and chafing dish parties made the evening pass pleasantly, till we sailed to the coast, where the Sheridan now lies, a wreck. We passed Aohu, the largest island of the Hawaiian group, for nearly a day, and got a close view of the numerous sugar plantations on it.

At this time diligent search was made for the stowaways on ship, and seventeen were found concealed in the coal bunkers, and dark under-passages. They were promptly shipped back to Manila. Early one morning we sailed into Honolulu harbor, and anchored at the dock, where we spent three days. Honolulu is so intensely American it is hard to realize how short the occupation has been. It closely resembles Southern California. There is the same tropical growth, with avenues of royal palms and masses of blooming flowers around the pretty villas. There are fine excursions around the island, but near at hand is the drive to the Pale for view, and the surf bathing in the opalescent waves of Warikiki beach, made famous by Stevenson. The regiment was entertained at all the clubs, and given several hops at the fine hotels in

the place.

The sailing from Honolulu was very pretty. The Hawaiians have the custom of speeding parting friends with wreaths of fresh flowers called leis. The water front is filled with women selling them, and strings of beads draped over the hats and white dresses, which every one wears here, the effect is beautiful.

The Royal Hawaiian Band played on the pier for us, and a native woman sang their plaintive "Aloha Ohoe" in farewell.

The British cruisers in port manned the yards, and cheered us, and their band joined ours in playing national airs, while we from hurricane deck, watched the "Paradise of the Pacific" fade slowly from sight.

Home was now drawing near, and the prospect of land life was decidedly formidable after spending so long a time on the water.

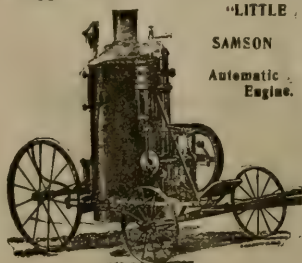
At 3 P. M. on the thirty-fifth day, we sighted the Farloe Islands, and the coast of California. Ere nightfall we had entered Golden Gate, had passed the quarantine and the customs, and were landed in San Francisco.

We were fortunate enough to get away in time to avoid the cataclysm of April 18th, but our good ship "Sheridan" having escaped this has now fallen victim to a strange current, and a dangerous shore. TRAVELLER.

STRATTON & BRAGG CO., GENERAL AGENTS. PETERSBURG, VA.

HEEBNER'S Little Giant and Pennsylvania Peanut Pickers and Wheat Threshers.

They are built in first-class manner, and are strong and durable. The price is within the reach of all. We guarantee them to do the work satisfactorily. We will mail catalogue and testimonials, and quote prices on application.



This cut shows our 5 and 7 h. p. "Little Samson" Vertical, Automatic Engine for running threshers, peanut pickers, cutting feed, sawing wood, etc. Larger size also furnished.



CHASE SAW MILLS.

ERIE ENGINE WORKS

SIDE and CENTER CRANK ENGINES.

UNION IRON WORKS

Locomotive--Portable and Stationary BOILERS.

Prices and catalogue on application.

Bickford & Huffman Farmers Favorite GRAIN DRILL.

The drill that has for sixty years earned its name by real merit and leads all others in popularity where ever known.

Steel Frame, Spiral Steel Grain Tubes, Roller Bearings, Light Draft, Disc or Hoe used on same frame.

AMERICAN FIELD FENCE STANDS LIKE A STONE WALL.

Turns all kinds of stock and is practically indestructible. An attractive fence made from HEAVY GALVANIZED smooth wires at the same cost of barb wire.

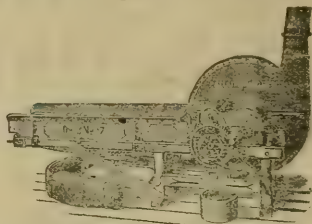
Send for catalogue and prices of it.

OHIO FEED AND ENSILAGE CUTTERS AND BLOWERS.

Capacity, 8 to 30 tons en-silage per hour, (according to size of machine), cut and elevated into highest Silo with only 6 to 16 horse power. Marvelous, but due to simple scientific construction. Perfect self feed mechanism and patented Silage distributor eliminate practically all labor. Trying to find a more popular machine is worse than trying to find the North Pole. Special catalogue describing all sizes, hand and power cutters sent on request.

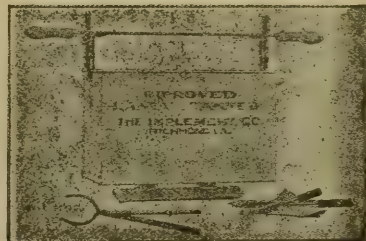
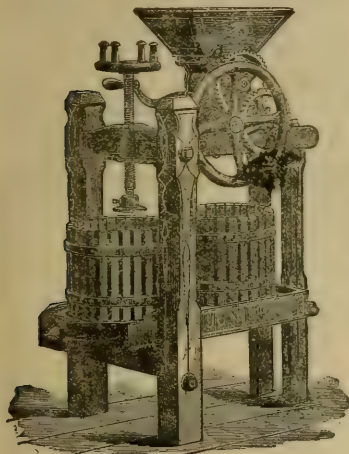


Drills wheat, oats, rye, peas, beans and all kinds of grass seed. Plants corn and beans in hills any desired distance and two or more rows at a time. The Wizard fertilizer force feed drills accurately any quantity of fertilizer from 55 pounds to 960 pounds to the acre.



SINGLE AND DOUBLE CIDER MILLS.

with the most improved and satisfactory grinding apparatus and throat adjustable to all sizes of fruit.



A RANEY CANNING outfit will save much fruit and vegetables, costs little, keeps money on the farm and brings more on. We furnish them to work on cook stove or furnace for either home or market canning. Their small cost will be saved in one day. Send for circulars and prices. With each outfit we furnish free a book of instructions telling how to can all kinds of fruit and vegetables. Prices from \$4.00 to \$22.50.

SEND FOR OUR NEW CATALOGUE TELLING ALL ABOUT

Time, Labor and Money Saving Farm Implements,

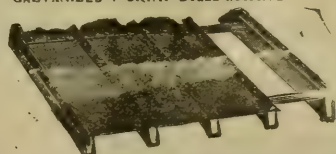
Giving descriptions and prices of

Wheel and Disc Cultivators, Disc and Hoe grain Drills, Corn and Cotton Planters, Farm Wagons, Engines, Buggies, Surries, Harness, Saddles, V. Crimp and other Roofing, Barb Wire Fencing, etc.

WILL BE MAILED FREE

Farmers will get the best Farm Implements on the market and save money by sending us their orders.

PAINTED V CRIMP STEEL ROOFING
GALVANIZED V CRIMP STEEL ROOFING



The cheapest and best roofing made. Especially adapted for covering houses, factories, barn and farm buildings. No extra tools required. It can be put on by any far. Furnished in lengths of 5, 6, 7, 8, 9 and 10 feet, and each sheet covers two feet in width.

The Implement Co., 1302 Main St.,
Richmond, Va.

TO IMPROVE THE SCUPPERNONG GRAPE.

Dr. G. B. Braxkett, Chief of the Division of Pomology, Department of Agriculture, has a number of experts traveling through the South making examinations of small wineries in that locality, with a view to securing new and improved varieties of the Scuppernong grape.

The Scuppernong is a grape entirely native to the South, the history of its first planting being lost in dim ages past, although claim is made that there is a scupper vine of this variety growing on Jamestown Island, which was planted by early English settlers. The fault found with the Scuppernong is that it has a tough skin, and does not readily cling to the stem as in other sorts. These two faults, it is the intention of the Division of Pomology to remedy.

Every little homestead in the South has its Scuppernong grape vine. The number of these houses and plantations is legion, yet the experts of the Department will endeavor to visit each of them as may be thought to possess a vine of superior quality. A number of the Southern farmers have made personal selection of grape vines—one will give large fruit, another will have thinner skins than others, while probably still another variety may have developed a tendency

to cling to the stems.

Up to this time the experts have found a few desirable kinds which are going to be developed by the Department officials. Yet at the same time they are still searching from hamlet to homestead, for a desirable quality of the grape which means so much to the South.

This grape is one of the types found in this country which will resist disease and insect attacks more readily than most of the European sorts—the latter in order to succeed here, in the East, must be grafted to native roots. From North Carolina to the Gulf and as far west as the 500 foot elevation line of Texas and Arkansas, the Scuppernong may be grown with some degree of success. When the pomological experts of the Department have finished their labors they will, undoubtedly, have succeeded in producing a variety which will help to develop that section, by enabling the people there to grow a grape capable of making a good wine, jelly, or adaptable for the table in the fresh form.

And yet, the Scuppernong wine business is not a new thing, for all along the coastal region may be found small wineries—some very crude and some equipped with modern machinery for wine making. At Norfolk, Virginia, is a large winery, which has made contracts with vineyardists in the

neighborhood to purchase their output for the next twenty years, and at a price, too, which will reap a handsome income to both grower and wine maker.

A POINTER.

Do you know, running a business is a good bit like farming? You may be holding your nose to the grindstone year in and year out, with no thought of or interest in anything else, and yet not be getting out of it one-half or one-fourth what you should. Down at the University of Illinois they have an interesting object lesson that sets one to thinking in earnest. There are four plots of ground, side by side, on which experiments in corn growing have been made for twenty-nine years. On one of them nothing but corn has been grown for that period of time. Last year it yielded at the rate of nineteen bushels to the acre. On the second an alternate growing of corn and oats produced last year forty-four bushels. On the third, where corn, oats and clover have been rotated, last year's production was fifty-nine bushels to the acre. On the fourth, where the most approved methods of agriculture in every way have been followed, a yield of ninety-six bushels was secured. Is your business raising ninety-six bushels of corn to the acre?

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Agriculture is the nursing mother of the Arts.--XENOPHON.
Tillage and pasturage are the two breasts of the State.--SULLY.

67th Year.

Richmond, Va., November, 1906.

No. 11

Farm Management.

WORK FOR THE MONTH.

The month of October has been almost an ideal fall month up to this writing (20th Oct.). The only exception was the second week, when we had a few days of severely cold weather for this section at this time of the year. As, however, it was not wet with the cold, little damage was done. Here and there a belated crop was caught and burnt by the frost. On the whole, probably more good than harm was done by the cold snap, as it checked the too luxuriant growth of fall seeded crops and the tendency of fruit trees to continue making wood growth and put them to the ripening up of that already grown. It was also beneficial in that it destroyed the Hessian flies and made wheat seeding safe. The fine weather has enabled large second crops of hay and clover and late crops of cow peas and cow peas and millet and cow peas and sorghum to be got up in splendid order and with these and the crops of sorghum, soy beans and corn fodder, live stock will be well provided with feed during the winter. The corn fodder will be an enormous crop this year, as the long wet summer caused an abnormal growth of stalk and leaf. This fine month has permitted this crop to be cut down and put in shocks and it has cured finely. Soy beans have made a fine growth generally and we have reports of splendid feed made from this crop. The pods have set heavily and the feeding value of the crop will be great. The Soy bean is the richest protein crop grown in the South and should be fed with corn fodder or sorghum hay and a little corn and will

then make a ration upon which stock of all kinds will do well. It is too rich to feed alone. Do not be in too great haste to store this crop in the barn as it requires to be thoroughly well cured in order to keep well. Especially is it important to be careful in storing the beans when threshed out. They cure very slowly and should never be put up in large bulk until late in the year. When threshed out spread thinly on the granary floor and turn them over repeatedly and then store in small bins. They will heat badly if put up in bulk too soon. These beans fed to hogs in the proportion of one-third beans and two-thirds corn will make meat faster than any other ration and will make it of a fine, firm quality and flavor, and will result in large economy in the quantity of corn required to be fed. Ground, they make a most valuable addition to the grain ration for cattle, and will permit of great economy in the use of bran for dairy cows. They should be threshed out by a wheat thresher run slowly and opened as widely as possible so as to allow of plenty of room for the straw to go through. Part of the concaves may also be removed with advantage, as the peas come out of the hulls very easily. We are glad to note a great increase of the area planted in this crop, as it is a most valuable one and well adapted to our section. One subscriber, who, acting on our advice, planted a large crop, reports to us that he never saw a crop make such a growth. It covered the whole field, although planted in drills two feet six inches or three feet apart and stood nearly four feet tall and the stalks were as thickly set with pods

from bottom to top as possible, more than 300 pods having been counted on one single stalk.

Push the work of securing all the crops of fodder of every kind as fast as the condition of the same and the weather will permit. It is lamentable to see the carelessness that many if not most of our farmers in the South exhibit in securing the crops of roughage of all kinds, which are so plentiful this year. Having secured the grain produced, the fodder is left in the field wasting and weathering until it has lost most of its nutritive value. If one-half the care bestowed upon saving the grain was exhibited in caring for the fodder of all kinds produced on the farms, hundreds of additional stock of all kinds could be carried on the farms and would convert this feed into meat, milk, cream and butter, which would pay well for the food consumed and leave a large heap of manure to take the place of commercial fertilizer and with much more profitable results in the permanent improvement of the farm. The grain fed with this roughage would, at the present prices of hogs and cattle, bring a much higher price than sold on the market. There is every indication that the present high prices of fat stock of all kinds is likely to be maintained through the winter months. The demand is good, and labor being well employed and likely to so continue this demand is not likely to be less, whilst stocks of feeding animals are not excessive in any section of the country. Grass fed stock has been closely marketed, the prices having tempted feeders to sell many which ought really to have been finished on corn. Hogs and sheep especially are bringing exceptionally high prices and will, in our opinion, be likely to continue to do so all through the winter. In the face of this prospect, we would urge that no labor be spared to save all the feed possible and to put it into the stock. A large area of corn fodder or sorghum can be put into small space when shredded and in this condition it will keep perfectly if thoroughly cured and dry when stored. Where sorghum has been allowed to mature the seed before being harvested, it is a wise course to cut off the heads before shredding the fodder and to have the seed heads ground and the meal fed along with the fodder. Where not ground, much of the value of sorghum seed is lost, as it is small and passes through the animals undigested. One of the great advantages of having a grinding mill at home is that it enables this work to be done at little cost during the winter months, as needed. A one or two horse sweep

power with grinding mill attached ought to be part of the outfit of every small farm, and, on larger ones, a mill capable of making good meal and to be run by a five or six horse gasoline engine ought to be installed. All the time wasted in going to the mill can thus be saved and corn and cobs together can be ground and fed to the stock, thus utilizing every part of the crop growth. Where a silo is part of the equipment of the farm, if it is not filled by the corn or sorghum grown specially for the purpose of making silage, the corn fodder and sorghum cane which was grown for the grain can be saved by cutting it into the silo, taking care to wet it well with a stream of water as it leaves the cutter. Whilst silage made from dried fodder is not as nutritive a feed as when made from the partially matured stalks, yet it is much better to utilize the dried fodder in this way than to leave it in the field to be blown away or otherwise wasted. The importance of saving all the coarse roughage possible is intensified this year from the fact that hay is a small crop all over the country, not more than 65 or 70 per cent. of an average crop, and is now selling at a high price and likely to be much higher before winter is over. A subscriber was in the office a few days ago who has made a good hay crop this year and reported that he was selling at \$20 per ton at the barn. By careful curing and saving of the coarse fodder crops of the farm, the hay may be made into a sale crop and yet the live stock be as well fed at home as though the hay was consumed there. Well cured shredded fodder is also becoming in many places a very salable product at a paying price.

In our last issue we wrote very fully on the seeding of the wheat crop. This is a work that should now have constant attention until the whole crop is got into the ground. We want once more to emphasize the necessity for perfect preparation of the land for the crop. Far better make one acre into a perfect seed bed before sowing than to plant two acres on land only partially fitted. We refer our readers to what we have said in the last issue on the fertilizer to be used for this crop. Where farm yard manure is available, use this at the rate of six or eight tons per acre with forty pounds of acid phosphate per ton of manure and you will have an excellent wheat fertilizer. If no farm yard manure is now available, use acid phosphate or bone meal at the rate of 300 pounds per acre, or use half of bone meal and half acid phosphate, and during the winter give

a top dressing of farm yard manure. When the wheat has been sown, see to it that water furrows are opened through the field so that all excess of water may be drained off as it falls and not stand upon the wheat. Wheat cannot stand being water-sogged.

Rye and Hairy or English Vetch may be sown, though it is getting late for the vetches. Rye may be sown up to the end of the month and will make a growth which will add some humus making material to the soil in the spring and conserve the nitrogen which has accumulated in the soil during the summer. Don't have any bare land if possible to avoid it. It loses fertility fast both in winter and summer in the South. The frost is here seldom severe enough to lock up this fertility in winter and the rains leach it away. Better utilize it to grow some humus making crop that will give some grazing in the early spring. This grazing will be found of inestimable value where sheep are kept. Ewes turned upon it will milk freely and thus push the growth of the lambs much faster than anything else that can be given them and the lambs will keep healthy and thriving grazing on such pasture.

Beet and mangold wurtzel crops should be pulled and stored at once. They are very susceptible to damage from frost and, when once frozen, will never keep well. They should have the tops cut off and the roots trimmed off and then, when dry, be stored in piles and heaps covered with straw to the depth of five or six inches and then have soil put on over the straw sufficiently thick to keep out frost and rain. Stored in this way, they will keep until next May, and will be found of great value for stock feeding.

Rutabagas and turnips should be left in the ground until the end of the month. They will get more weight during this month than during any other period of their growth, and such frost as we may have will not hurt them. If they should be frozen, leave them in the ground until thoroughly thawed out and then pull them and store in the way we have advised for beets and mangolds, and they will keep until late spring and be found very valuable especially for ewes with lambs, supplying them with succulent feed at a time when they need such feed badly and when it is otherwise difficult to get it. We shall never be able to make the most profitable return from

sheep in the South until more rutabagas, turnips and mangolds are grown for winter feed for the ewes.

There are thousands of acres of pasture land in the South which could be made to carry much more stock per acre if only some care was given to them every few years. Weeds are allowed to grow up in them and patches of briars and young trees are left uncut and the grass is killed out. Now is the time to take this work of renovation in hand. Take a grub hoe and cut out all the strong growing weeds and briars and young trees. Then take a sharp toothed, heavy drag harrow, or a disc or cutaway harrow with the discs or blades set straight, and go over the pasture, tearing and cutting the sod. Then follow with a horse rake and gather off all the trash which can be raked up and put this into the pens or yards to be made into manure. Then apply a dressing of a ton or two of lime per acre broadcast and leave until spring, say, February or March, then sow a bushel or two of mixed grass seed, orchard grass, Virginia blue grass, tall meadow oat grass, perennial rye grass, and meadow fescue grass, per acre with eight or ten pounds of mixed clover seed, alsike, and white clover, per acre, and harrow in with a light, slant-tooth harrow, chain harrow or bush harrow, and then roll when dry enough, and the pasture will take on new life and make a fine grazing sod capable of carrying and feeding much more stock for many years.

In this issue will be found an article on "The Manure Heap." This is a subject to which Southern farmers have never given that attention which it deserves, and now when the stock is being brought into the stables and barns, it requires and demands attention. A manure heap has been aptly described as the farmer's Savings Bank, and it well deserves that name. Had Southern farmers realized this years ago, they would now have had thousands, probably millions, of dollars in their pockets, or in the banks, or in property to their credit, which the fertilizer manufacturers and dealers have absorbed. In a recent return we find that the Southern fertilizer manufacturers have invested nearly \$30,000,000 of capital in building and equipping plants in this section for the conduct of their business and that their annual sales of goods amounts to nearly \$19,000,000. This is a vast sum to come out of the pockets of the farmers of the South and represents about the total annual value of the wheat crop of those States, and nearly

the annual value of the corn crop of Virginia. A very large part of this outlay could be saved and the crop producing capacity of the land could be greatly increased over that brought about by the use of commercial fertilizers, if only farmers would give as much attention to the making, saving and using of the manure produced by the live stock of the South as farmers in the old country—and in France and Germany—give to this subject. In the hope that we may induce attention to this important subject, we have written the article referred to and ask careful consideration for it.

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So long as the weather keeps mild and open, keep the teams at work breaking land intended to be cropped next year and which has not been already broken and seeded with some winter growing crop. Many farmers doubt the advisability of late fall and winter plowing in the South because we do not have the severe winter frosts which are common further North and which disintegrate and break down the roughest land. We entirely disagree with this conclusion. Whilst it is true our frosts are not so severe as further North, yet there are few winters when we do not have frosts more or less lengthy and severe, which do much to improve the texture of land which is open to their action. But even were this not so, we should yet advocate late fall and winter plowing for the reason that nearly all our land wants and needs badly to be more deeply and thoroughly plowed and be more frequently cultivated and worked before it is placed under a crop. When the fall and winter months are allowed to go by without the land being deeply plowed, the pressure of work in the spring almost always prevents such work being as thoroughly done as it ought to be, and besides, plowing in spring does not admit of such deep and thorough work being done as may be done with advantage and safety in the fall and winter. Old farmers and planters in the South almost always caution new comers from the North and West that they must not plow deep or they will fail to make a crop. This is largely true if the doing of the work is deferred until late spring, for there is then not time for the soil to be so acted upon by the sun and air as to fit it to become a productive soil. The soil below the top two or three inches of most of our farms has been so long tramped solid and kept away from the influence of the sun and air that it is unfitted and unable to produce a crop until it has been thoroughly aerated and disintegrated, and this can

only be done by exposure for some months to the action of the air and sun. The subsoils are, in nearly every case, almost impermeable to moisture. They need to be opened and broken fine so that they may absorb and hold the rainfall and the air, and after these elements and the sun have acted upon them, the plant food locked up in them will become available to a greater or lesser degree, and crop production become possible. These deeply lying soils in the South have usually a high percentage of phosphoric acid and potash in their make up, but these essential elements of fertility are in an unavailable form for the support of plant life. They can only be made available by the action of the sun, air and moisture, and require time for this to be effective. Hence the importance and necessity for late fall and winter plowing. Numerous experiments made in different parts of this country and in the old world have conclusively proven that the dicta of Jethro Tull that "tillage is manure" is abundantly true. It may not provide all the manure or fertility which a heavy crop calls for, but it will certainly greatly reduce the expense of fertilizing a crop to plow and cultivate the land deeply and frequently before planting. Whenever the land is dry enough to work well, keep the plows running. The crop next year will show the benefit of this, and each year thereafter the result will be more marked. Wherever the subsoil is a good clay, break this with a subsoil plow following the turn plow and thus admit air and moisture into it. Very few crops in this section will suffer from drouth in the summer if the land has been subsoiled in the winter, as we have rarely a period of drouth so long continued as to exhaust the water content of an open subsoil. We have seen this proved in quite a large number of cases in this State during the last twenty years.

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See to it that all barns, stables, sheds, and pens are put into good repair and especially that the roofs are made water-tight before the stock are housed for the winter. It is useless to bring stock out of the pastures and put them into cold, wet, draughty buildings. They are better off out of doors than in such places, as they can exercise to keep themselves in some degree of warmth out of doors, whilst in the buildings they must perforce stand still and shiver. It is a most unprofitable use of feed to give it to animals to merely make heat in their bodies to keep them comfortable. This is the first use to which it will be applied if they are housed in cold, wet,

draughty buildings. Make the animals comfortable and the feed will then be used to increase growth and fatness. Have all the stables and sheds limewashed inside and outside, unless they are painted outside, which is better, as being more permanent. Lime is a great sweetener of the air and destroyer of germs, and hundreds of cases of disease would be avoided by its more constant use. Cement floors should take the place of all other kinds of floors in barns, stables and sheds. Such floors can be made by the ordinary labor of the farm at comparatively small cost, and will pay for themselves over and over again in a few years in the saving made in the manure, which will have in it all the liquid voidings of the stock, which are the most valuable for crop production. A mixture of one part cement and three parts clean sand and rock laid three or four inches thick on a well consolidated subsoil, will make a floor which will be strong enough to carry all kinds of stock and will practically last for ever. The National Department of Agriculture has recently issued a Farmers' Bulletin on this subject, which every farmer should have and study. It is Bulletin 235. Send for it.

THE MANURE HEAP.

In our article "Work for the Month," we intimated that we would say something further on the subject of saving and utilizing the manure made on the farm. We are moved to do this because of the very general neglect with which this work is attended to on nearly every farm in the South. Whilst every farmer in the South realizes that his farm needs and must have manure of some kind applied to it if he is to secure paying crops, nearly the whole of these men rely almost wholly upon commercial fertilizers to meet this requirement, and regard the manure made at home as of little importance and value and hence take no care to save and utilize it. At this season of the year, when the live stock is about to be housed for the winter, we want to impress upon them that this view is a wholly erroneous one, and to urge that the necessary steps be at once taken to care for and utilize every particle of the home-made product. Every ton of manure that can be saved is money saved out of that which it would otherwise be necessary to expend in the purchase of commercial fertilizers. Most of our readers, when they have once experienced the benefit to be derived from saving the home-made manure, will be ready to admit that it is much easier in this

way to save the cost of a ton of manure than to find the money wherewith to buy a ton of commercial fertilizer. When taxed with the folly of wasting the home-made manure and buying commercial fertilizer to take its place, the answer usually is that the whole quantity which can be made at home is so small in proportion to what is required that it is not worth troubling about. It is a very easy matter to show that this is not so, as every horse or mule kept on the farm makes manure in each year of the value of \$27; each head of cattle, manure of the value of \$19; each hog, manure of the value of \$12, and each sheep, manure of the value of \$2. These figures are based on the value of the phosphoric acid, potash and ammonia in the manure alone, which are estimated to be of the same value per pound as in a commercial fertilizer. It may be that this value is somewhat too high, as the plant food in the manure is not quite as immediately available as in a good high grade commercial fertilizer. As against this, however, may be set the fact that nothing is added for the value of the straw and other vegetable matter which necessarily accompanies the manure, and which makes it so valuable as an improver of the physical and mechanical condition of the soil, nor is anything credited to the manure for its value as the principal introducer into the soil of that microbic life, upon which, more than upon the actual plant food content of the soil, depends the fertility and crop productive capacity of the land. Leaving out these, however, and making a liberal allowance for loss of manure by pasturing, it may be conservatively stated that on a small farm carrying four horses or mules, twenty head of cattle, fifty sheep, and ten hogs, there will be made during seven months of the year manure of the value of \$250. Now, how many farmers with such a farm as this spend as much as \$250 a year in buying commercial fertilizers? We opine that the number is small. And even if they do, they will not get from the fertilizer bought anything like the permanent improvement of the soil that they would get from the use of the home-made manure. Commercial fertilizer supplies no humus making material to the soil and in only few cases can any result be seen from its application after the first year. Sometimes a little effect may be seen in the second year, but rarely anything beyond that time. In the case of farm yard manure, its beneficial effects may be seen for many years after its application. Sir John B. Lawes said that as the result of his experiments continued for forty years,

he was able to say that on land manured with barn yard manure continuously for twenty years there was gradual and constant increase of crop production and that for twenty years after the application of manure ceased on one piece of land, the annual crop yield was considerably higher than that on adjoining unmanured land. Looked at from another point of view, the saving of the manure of the live stock is a matter of great moment to the farmer. Every form of food fed to live stock has two values—one, the feeding value, consisting of the carbohydrates protein and fat in the food; the other, the manurial value consisting of the nitrogen, phosphoric acid and potash in the food. When the animal eats and assimilates the food contents, it does not fully appropriate and use the manurial elements. These are voided in the solid and liquid excrement. The urine is rich in nitrogen and potash; the dung in phosphoric acid. From seventy-five to ninety per cent. of the manurial value in the feed eaten is voided and unless these voidings are saved and applied to the land, this large proportion of the value of the food eaten is wasted and lost. No farmer can afford thus to waste fertility. The richer the food fed, the greater the value of the dung and urine excreted, and the greater the loss sustained. Cotton seed meal, gluten feed, and bran, amongst the grain feeds; clover, pea and soy bean hay, amongst the long feeds, make the richest manure. Corn and the other cereals and meadow hay are the next most valuable, and timothy hay, straw and fodder the least valuable in plant food. Having thus shown the amount and value of the manure possible to be made and saved on a farm from the live stock kept, we will now illustrate how even a light dressing of this manure will increase the yield over a five years' rotation of crops. An experiment made at the Ohio Experiment Station will illustrate this:

One hundred and fifty tenth-acre plots, arranged in five sections of thirty lots each, have been cropped with corn, oats and wheat grown in succession, followed by two years in clover and timothy mixed, the cropping being so planned that each crop is represented each season. The test was begun in 1894, and eight crops each of the cereals and seven hay crops of the first year and six of the second year have now been raised. On plot 18 of this test barn yard manure is applied to the corn and wheat crops at the rate of eight tons per acre to each crop, and on plot 20 the same kind of manure is used at the rate of four tons per acre on each crop, there being a total application

every five years of sixteen tons of manure to plot 18 and eight tons to plot 20. The manure is taken from flat, open yards, where it has accumulated for several months during the fall and winter, and has been subjected to the conditions which affect the ordinary open yard manure of the average farm, conditions which involve very considerable loss. For both corn and wheat, the manure is applied as a top dressing, and is put on with the manure spreader. The results of this test are as shown in the following table, which gives the average manured yield for each crop for the period over which the experiment has been conducted, the mean unfertilized yield for the same period of the two plots nearest the manured plot, the average in yield due to the manure, and the value of this increase, counting corn at 331-3 cents per bushel, oats at 25 cents., and wheat at 662-3 cents, corn stover at \$3.00 per ton, straw at \$2.00 and hay at \$6.662-3 per ton:

Table I.—Increase Per Acre From Barn Yard Manure in Five-Year Rotations.

CROP AND TREATMENT.	Wooster.			
	Plot 18.		Plot 20.	
	Grain.	Straw or Stover.	Grain.	Straw or Stover.
CORN.				
Manured yield.....	Bushels. 44.25	Pounds. 2,096	Bushels. 40.36	1,922
Unfertilized yield.....	30.76	1,602	31.26	675
Increase.....	13.49	494	9.10	247
Value of increase.....	\$ 4 50	\$ 0 74	\$ 3 03	\$ 0 52
OATS.				
Manured yield.....	40 05	1,551	34.86	1,337
Unfertilized yield.....	30.56	1,084	29.35	1,089
Increase.....	9.49	467	5.51	248
Value of increase.....	\$ 2 37	\$ 0 47	\$ 1 38	\$ 0 25
WHEAT.				
Manured yield.....	13.42	1,702	11.62	1,466
Unfertilized yield.....	6.84	742	6.99	756
Increase.....	6.58	960	4.63	710
Value of increase.....	\$ 4 38	\$ 0 96	\$ 3 08	\$ 0 71
HAY.				
	1st yr. lbs.	2d yr. lbs.	1st yr. lbs.	2d yr. lbs.
Manured yield.....	2,903	3,503	2,474	3,242
Unfertilized yield.....	1,678	2,586	1,657	2,537
Increase.....	1,245	1,007	817	705
Value of increase.....	\$ 4 15	\$ 3 36	\$ 2 72	\$ 2 35
Total value of increase.....	\$ 20 93		\$ 14 14	
Value of increase per ton of manure.....	1 31		1 77	

It will be observed that in every case the value of the increase per ton of manure is greater from the smaller application of manure, although if we count the cost of manure at only that of getting it from the barn yard to the field, the net profit is much greater from the large application of manure.

Additional light is thrown upon this point by an-

other series of the experiments in which corn, oats and wheat have each been grown continuously on the same land during the same period covered by the rotation experiments just described. In this test plot five receives two and a half tons of manure each year and plot six receives five tons; the manure, as in the other test, being applied as a top dressing and with the manure spreader. The average results of the eight crops of each grain harvested are shown in table II:

Table II.—Increase Per Acre From Barn Yard Manure on Crop Grown Continuously.

CROP AND TREATMENT.	Plot 5.		Plot 6.	
	Grain.	Straw or Stover.	Grain.	Straw or Stover.
CORN.	Bushels.	Pounds.	Bushels.	Pounds.
Manured yield.....	32.75	1,649	48.33	1,950
Unfertilized yield.....	25.33	1,307	24.46	1,272
Increase.....	10.39	342	18.87	678
Value of increase.....	\$ 3.97		\$ 7.30	
Value of increase per ton of manure.....	1.59		1.46	
OATS.				
Manured yield.....	30.81	1,045	35.86	1,384
Unfertilized yield.....	26.87	993	25.95	1,017
Increase.....	3.74	52	8.91	367
Value of increase.....	\$ 1.04		\$ 2.60	
Value of increase per ton of manure.....	41		52	
WHEAT.				
Manured yield.....	12.41	1,392	15.47	1,728
Unfertilized yield.....	8.43	921	8.43	929
Increase.....	3.98	471	7.04	799
Value of increase.....	\$ 3.12		\$ 5.50	
Value of increase per ton of manure.....	1.25		1.01	

Table II indicates a considerably larger increase from manure, both in quantity and value, in the corn crop than in either of the other crops, while that from oats is much smaller than that from wheat.

Although the separate applications of manure are higher in the continuous than in the rotative cropping, the total weight applied in the course of a five year period is heavier, as shown by Table III:

Table III.—Total Weight of Manure Applied in Five Years, with Value of Increase Per Ton of Manure.

EXPERIMENT AND PLOT.	Total weight of manure in five years.	Value of increase per ton of manure.
Rotation, Plot 20.....	8 tons.....	\$1.77
Continuous, Plot 5.....	12½ ".....	{ 1.59 on corn 1.11 on oats 1.25 on wheat
Rotation, Plot 18.....	16 ".....	1.31
Continuous, Plot 6.....	25 ".....	{ 1.46 on corn 1.22 on oats 1.10 on wheat

These figures seem to show very clearly that where the supply of manure is scanty, it should be spread over as large an area as possible.

The possibility of making and saving manure and its value in crop production being thus demonstrated the next question is how to save and care for it until used. There can be no doubt but that the immediate application of the manure to the land directly from the barn is the best and cheapest method of disposing of the same. This has been fully demonstrated in experiments made both in this country and in Canada. It saves loss from leaching, loss from overheating, and loss in the cost of handling. Wherever and whenever possible, load the manure directly from the stable or barn into the manure spreader or wagon and spread at once on the land intended to be benefitted. Here we would remark that a farmer cannot make a better investment of money than to buy a manure spreader. It will make the manure go more than twice as far as hand spreading, and ensures the easy and economical handling of a product which, from the unpleasantness of the work, has hitherto been largely neglected and shirked. A farmer of our acquaintance, who has this year used a spreader for the first time, told us a few weeks ago that he would not now be without the machine even if it cost twice as much as it does. He says that now he covers with the manure more than twice the area of land that he formerly did, and gets as good results over the whole as he did formerly from half the area, and he has no difficulty now in getting the manure handled and put at once where it will do the most good. Where from one cause or another it is not possible to have the manure put directly on the land from the barn or stable, as it is made, then the best place to save it is a water-tight pit into which all, both liquid and solid can be put and be packed down closely. The manure from the different animals should be mixed as put into this pit, as horse manure is apt to overheat and waste badly when stored alone. Mixed with cow and pig manure, this will be prevented. They are cold and watery and will make, with the horse manure, a compost which will keep without loss in the pit. The rain which falls naturally on the pit will not injure or waste the manure if the pit is tight and the liquid prevented from escaping, but drainage from the surface or from roofs should not be allowed to find its way into the pit, or there will be an excess of moisture and loss. If a pit cannot be used for this purpose, then store all the manure in a compact heap

on a place in the yard, having a good clay bottom sloping from all sides to the centre of the heap, and do not keep it there longer than can be avoided, but get it into the land. Where stock is kept in pens or boxes the manure will keep with practically little loss trodden down solid by the stock. Gypsum or plaster was formerly strongly advised to be used as a preservative of the ammonia in the manure, but recent investigation has shown that it has but little value for this purpose. The manure can, however, be greatly increased in value as a crop producer by the addition of forty pounds of acid phosphate to the ton of manure as the manure is being made. The effect of this is to retard the decomposition of the manure and thus prevent loss of ammonia and at the same time add to the phosphoric content, which is the plant food element in which the manure is most lacking. In a recent experiment made with manure untreated and with the same quantity of manure treated with acid phosphate, the untreated manure made an increased value in the crop of \$20.35, whilst the treated manure gave an increase of \$44.35, thus showing the great advantage to be gained by the use of acid phosphate with manure. The best way to use this is to spread a little on the manure every day as it is made. Floats or untreated phosphate rock may be used in the same way to help the manure, but will be slower in action and it is doubtful whether it will in any degree conserve the ammonia. The effect of the decomposition of the manure will no doubt be good on the floats or untreated rock in that it will make the phosphoric acid more quickly available.

PERFECTING THE CORN CROP.

Editor Southern Planter:

It is strange that the history of the most important crop grown in America to-day should still be a matter of surmise. When this continent was first discovered the Indian inhabitants were cultivating corn; in fact, it was practically their only crop, and an abundant harvest was the source of great rejoicing then as now. Corn is the most important cereal grown in the world and the rise of the American nation may be said to be contemporaneous with the extension of the territory in which this crop could be successfully cultivated. From the earliest settlement of the country down to the present time, the corn crop has measured the degree of prosperity enjoyed by our farmers, and it will certainly have

a more marked influence in the future than in the past. Therefore, it is appropriate that great care and attention should be given to the improvement of the corn crop for a variety of reasons which are more or less familiar to all of us and need not be enumerated here. The central truth which concerns us most at the present time is the fact that corn needs improvement; and second, that desirable improvement can be effected at a modicum of expense in a short period of time.

How shall improvement be effected so as to secure results that will be of value to present generations? This is a problem which confronts the American farmer and for which a solution is being most earnestly sought, not only by thousands of practical farmers, but by hundreds of investigators in the various experiment stations. It is gratifying to know that much progress is being made with the problem and that results of value are being presented from time to time which can be incorporated in the general practice of the farm with success and profit. For a number of years a great deal of attention has been properly given to the improvement of corn through selection, and as will be shown later on, this is a wise and judicious method to follow. But selection will not solve all the difficulties nor bring about all the improvements which seem desirable and attainable. In the mad rush to say something about plant breeding, the matter of selection has been somewhat over-emphasized in the humble judgment of the writer, and not quite enough said about soils and their relation to crop production. Before improvements of permanent value can be effected in any farm crop, the soil must be brought into condition to perform its functions satisfactorily, and so it seems proper, before entering into a discussion of the means by which improvement can be effected through plant breeding, that a general discussion of soil types and the plant food contained therein be undertaken.

It is well known that the average yield of corn in the South is notoriously low when compared with the crops raised under the best farm practice. It will be instructive, therefore, to find out what the approximate plant food supply of the soil may be, and if the deficiency in crop yield is due to lack of one or more elements of plant food or to all of them. With this idea in mind, the humus, nitrogen, phosphoric acid, potash and lime contained in a red clay upland and a prairie soil have been presented in the following table:

Analyses of Typical Soils.

CONSTITUENTS.	1st Foot.		2, 3 and 4 foot.		Total.	
	Red Clay. Prairie.	70,000	Red Clay. Prairie.	119,840	Red Clay. Prairie.	70,000
Humus						
Nitrogen	3,500	8,030	6,000	14,170	9,500	22,200
Phosphoric acid	2,100	6,430	5,600	16,270	7,700	22,700
Potash	12,250	12,800	36,750	40,100	49,000	52,900
Lime	3,500	17,920	14,000	75,180	17,000	93,100

*Calculated on the basis of 3,500,000 pounds per acre foot. Notice that the humus is only given for the first foot of each soil; while the total plant food in the second, third and fourth feet is only approximate, as no analyses of the two types of soils to this depth could be found. The sample of red clay soil was taken on the farm of Major George Campbell Brown, near Spring Hill, Tenn., and the rock from which it was formed is geologically known as the blue limestone or Nashville formation. As will be seen from the table, this soil is very rich; in fact, it cannot be regarded as typical of Southern soils, but it has been introduced to show that even the richest of our soils are often deficient in one or more elements of plant food, which have to do largely with large crop yields when compared with the rich black prairie soils of the Northwest; and as lands of this type have been frequently cultivated in the South for from fifty to one hundred years without the addition of any commercial fertilizers, it is not surprising that they should have reached, in some instances, the limit of profitable farming, particularly as the great majority of our soils do not contain anything like as much total plant food as that indicated by the table. The table would indicate that there are abundant supplies of plant food in the soil for many years to come were all the constituents available. As a matter of fact, it has become necessary to use commercial fertilizers in many instances to stimulate crop production.

The reason why larger crops are not obtained on these soils is not altogether due to the deficiency of plant food, but to the fact that sufficient cultivation is not given to render it available. Then, as a matter of fact, even the rich soils of the middle basin of Tennessee are very deficient in some elements of plant food, notably in phosphoric acid, followed closely by nitrogen and lime. There seems to be plenty of potash and applications of lime will help to set this free. Observe, however, that the prairie soil is much richer in all the elements of plant food. This is notably true in the case of phosphoric acid, as it contains 6,430 pounds in the first acre foot; more than three times as much as the red clay soil. The amount of potash is about equal in both cases, though

there is a marked deficiency in nitrogen and lime in the red clay soil. The prairie soils of the Northwest are noted for the magnificent crops which they yield and the ability to maintain these yields through a series of years. The explanation is not hard to find in view of the figures presented above, and these figures show more plainly than words to what the discrepancy in crop yields is attributable, for the crop-producing power of the soil is measured, according to modern scientific reasoning, by the amount of available plant food contained therein.

There is another point to which attention must be directed before leaving this table, and that is the large amount of plant food contained in the second, third and fourth foot of soil, which, if the land is properly handled, should annually yield up considerable amounts. Notice that the total amount of plant food contained to a depth of four feet in a red clay soil is very large, amounting to more than 9,500 pounds of nitrogen, 7,700 pounds of phosphoric acid, 49,000 pounds of potash and 17,000 pounds of lime. While this is an enormous total, roughly speaking, there is only about one-third as much phosphoric acid, one-half as much nitrogen, and one-sixth as much lime in the red clay soil as in the prairie soil. This is a remarkable difference and becomes more striking when it is considered that a large per cent. of our red clay uplands formed from dolomite rock do not contain nearly as much food as the red clay under discussion. For instance, in the first acre foot of a typical soil of the dolomite formation, there are only 1,200 pounds of nitrogen, 1,400 pounds of phosphoric acid, 4,200 pounds of potash, and 1,835 pounds of lime. In a soil of the type prevailing in what is known as the barrens of Tennessee and other areas of like formation found throughout the South, there are only 1,300 pounds of nitrogen, 350 pounds of phosphoric acid, 7,630 pounds of potash, and 3,500 pounds of lime per acre-foot. These soils, to be rendered profitable for cultivation, must be deeply broken and persistently cultivated, and subsoiling will often be advantageous. Then, some of the vigorous rooting leguminous crops should be grown so that when they decay channels may be opened up and air and water allowed to penetrate freely and assist in the disintegration of plant food. Thorough cultivation with intelligent fertilization will do much to improve the nature of these soils and render their cultivation profitable in corn and other standard crops.

That there is a deficiency in the available plant food on much of the land devoted to corn is shown

by the following table, which presents the draft made on the soil by corn crops of 20, 40, 60 and 100 bushels. The amount of nitrogen, phosphoric acid and potash required for the production of the grain and stover is indicated in this table, together with the total amount required by the crop:

Draft Made on Soil by Corn Crop.

		20 bus.	40 bus.	60 bus.	100 bus.
Nitrogen	{ Grain	20.38	40.80	61.20	102
	{ Stover	26.	31.2	36.4	52
	{ Total	46.38	72.	97.6	154.
Potash	{ Grain	4.48	8.96	13.44	22.40
	{ Stover	35.	42.	49.	70.
	{ Total	39.48	50.96	62.44	92.40
Phosphoric acid	{ Grain	7.84	15.68	23.52	39.20
	{ Stover	7.25	8.75	10.15	14.50
	{ Total	15.09	24.38	33.67	53.70

The amount of stover was calculated on the basis of 2,500 pounds to 20 bushels of corn, 3,000 pounds to 40 bushels of grain, 3,500 pounds to 60 bushels of grain, and 4,500 pounds to 100 bushels of grain. On this basis a 20 bushel corn crop only requires 46.38 pounds of nitrogen, 15.09 pounds of phosphoric acid and 39.48 pounds of potash. This is certainly a small draft on the fertilizing constituents of the soil, and there should be no difficulty in supplying the need of a 20 bushel corn crop in view of the large amount of plant food which is seen to be contained in the first four feet of soil. Yet, the average corn crop of the South is much less than 20 bushels per acre; in fact, for the whole United States, it is only 25.5 bushels; for the State of Virginia, 22 bushels, and for Illinois, one of the leading corn growing States of the Union, 32.2 bushels. There is thus a deficiency in the available plant food from some cause or the crops would be larger. Observe that it would only take 72 pounds of nitrogen, 24.38 pounds of phosphoric acid, and 50.96 pounds of potash to supply the needs of a 40 bushel corn crop. Surely, there is no reason for not so cultivating and fertilizing the soil that there would be an adequate supply of available plant food for the needs of such a crop. This table brings clearly home to us the fact that our soils must be cultivated better and supplied with certain elements of plant food before we can hope to increase crop production. It is important to realize this truth before attempting to increase the yield through selection and various other artificial means. As a matter of fact, there are many farmers in the South raising from 40 to 60 bushels and in some instances, 100 bushels per acre. These crops are being raised on land that does not contain a larger gross supply of plant food than that shown in the table, and it is not surprising that they should

be able to raise 100 bushels on soils which are apparently not so well supplied with the needed elements of plant food, for a 100 bushel crop of corn only requires 154 pounds of nitrogen, 53.70 pounds of phosphoric acid, and 92.40 pounds of potash.

There is another point to which attention should be called; namely, that by far the larger part of the nitrogen and potash are contained in the stalk and the largest part of the phosphoric acid in the grain. Therefore, on lands where a good stalk is obtained with a small per cent. of ears, phosphoric acid should be liberally used.

In the following table the plant food required for production of the grain and stover in a 20, 40, 60 and 100 bushel corn crop is shown:

Commercial Plant Food Required by Grain and Stover

	20 bus.	40 bus.	60 bus.	100 bus.
Nitrate of soda	300	465	630	960
Cotton seed meal	690	1071	1452	2214
Acid phosphate	94	152	210	327
Muriate of potash	79	102	125	171

Nitrogen, Phosphoric Acid and Potash Supplied by Cotton Seed Meal.

	690	1071	1452	2214
Nitrogen	118	192.6	261.3	398.8
Phosphoric acid	12	18.6	25	38.62
Potash				

Amount of Farm Yard Manure Required to Replace Nitrogen, Phosphoric Acid and Potash.

	8000	12414	16827	25655
Nitrogen	14060	21818	29575	44363
Phosphoric acid	6335	10141	13746	20958
Potash				

To supply the nitrogen for a 20 bushel corn crop would require 300 pounds of nitrate of soda or 690 pounds of cotton seed meal, and it would also be necessary to apply 94 pounds of acid phosphate and 79 pounds of muriate of potash. To supply the needs of a 100 bushel corn crop would require 960 pounds of nitrate of soda or 2,214 pounds of cotton seed meal, 327 pounds of acid phosphate and 171 pounds of muriate of potash. It is manifestly impossible for the farmer to supply all the needs of a 100 bushel corn crop in an artificial form, and it is inadvisable for him to attempt to do so. If the soil is cultivated so as to set free stores of plant food contained therein, plenty of potash should, as a rule, be rendered available, and the needed nitrogen and vegetable matter can be added cheaply through the growth of leguminous crops in a proper rotation on the land. Acid phosphate will often have to be supplied in an artificial form, but it is well to observe that only moderate applications would be necessary to meet the re-

quirements even of a 100 bushel crop, so that with these ideas in mind it is easy for the farmer to so amend his practice as to supply the needs of his land for large yields of corn at a moderate cost.

It is also well to observe that if cotton seed meal were used to supply the nitrogen, it would add considerably to the stores of available potash and phosphates in the soil as well, supplying, in the case of a 20 bushel crop of corn, more phosphoric acid than is needed, though considerably less potash. Cotton seed meal is thus a complete fertilizer in itself, though not a well balanced one, as the table indicates. Farm yard manure is another plant food often used to supply nitrogen, phosphoric acid and potash for the corn crop. It is often not used intelligently, however, because it is not a well balanced food, a fact not generally recognized. Observe that it would require four tons of farm yard manure to supply the nitrogen needed by a 20 bushel corn crop, 7 tons to supply the phosphoric acid, and 61-4 tons to supply the potash. Thus, where farm yard manure is used for corn, better results will be obtained if good applications of acid phosphate are made in addition. This is an important fact and should be carefully borne in mind by the corn grower. Where large amounts of farm yard manure are used, say, sufficient to supply the nitrogen for a 100 bushel corn yield, some additional potash should be added as well. 121-4 tons of farm yard manure would just about supply the nitrogen required by a 100 bushel corn crop, whereas, 221-2 tons would be required to supply the phosphoric acid and 101-2 tons to supply the potash. It is fortunate that in the case of farm yard manure the element of plant food which needs to be supplied in an artificial form to balance it up should be the cheapest for the farmer to buy.

The data contained in the three foregoing tables present a series of interesting facts and shows beyond a question of doubt that even ordinary soils contain fair amounts of plant food, but that it is evidently not in an available form or larger yields would be obtained. They further emphasize the necessity of thorough cultivation in order that the available stores of plant food may be rendered useful to plants. Furthermore, they show that large amounts of plant food are not required by ordinary corn crops and that the yields can be materially increased by more intelligent fertilization and the application to the soil of those elements in which it is most likely to be deficient. It is both possible and profitable to use commercial fertilizers to supply the deficiencies of the soil

in sufficient amounts to insure good yields of corn at a profit to the owner of the land, and it is especially important that land intended for corn receive generous applications of phosphoric acid.

ANDREW M. SOULE,..
Director.

Experiment Station, Blacksburg, Va.

(To be continued.)

GROUND PHOSPHATE ROCK (FLOATS).

Editor Southern Planter:

A clipping from the August number of the Southern Planter giving the answer of the editor to an inquiry from Foster Clarke, Blount County, Tennessee, regarding ground phosphate rock as an absorbent of ammonia in barn yard manure, came to my desk this morning, and as the editor's conclusion was so directly contrary to the conclusions which I have formed from all the information which I could gather on this subject, I beg leave to state some facts which I think will give light on this question. Probably the most reliable, valuable and extensive experiments ever conducted with preservatives of manure, are those in progress at the Ohio Experiment Station, where careful field experiments have been carried on during the past eight years, duplicate experiments having been made each year with the use of different materials. Based upon the increased crop yield produced where the ground phosphate rock was mixed with manure, previous to the application of the manure, as compared with the use of the same manure without rock phosphate, these soil experiments have shown that the addition of ground phosphate rock increased the value of the manure more than 60 per cent. As an average of forty-two tests, extending over a period of seven years, the average value of farm manure was found to be \$1.99 per ton, measured in increased crop yield produced, but, when forty pounds of finely ground rock phosphate were added to the manure, its average value was found to be \$3.23 pr ton, making an increased value, due to the addition of ground phosphate, of \$1.24 per ton of manure.

In comparative tests with ground phosphate rock, and acid phosphate in connection with barnyard manure, forty-two tests with each of these materials, show that \$1.00 invested in raw rock phosphate made a net profit of \$6.75, while \$1.00 invested in acid phosphate made only a net profit of \$3.93. Further-

more, these tests show that the untreated rock phosphate is enriching the soil twice as much as the acid phosphate. Consequently, in the long run, the untreated rock, beyond any question whatever, is producing the more lasting results. In these tests the ground phosphate rock was applied to the manure at the rate of forty pounds to the ton of manure just three weeks previous to the application of the manure to the soil. So, if the organic acids resulting from the fermentation of the manure had such a marked effect up on the untreated rock in rendering it available in so short a time as this, and if the rock absorbed so much of the ammonia of the manure, and prevented its escape into the atmosphere, how much greater would be the results from the use of this material in connection with barn yard manure if it were applied from day to day to the manure throughout the year? It makes no difference whether or not the theories of some fail to bear out the results, as facts based upon actual practical results must be our guide if there is to be any such thing as agricultural advancement. In the face of the fact that hundreds of stock breeders have been using ground phosphate rock as a preservative of manure, and for the purpose of reinforcing the manure, for years with profit, and are still using it, it would indeed be very hard to doubt its efficiency. In this connection, it may be interesting to know that the farmers of Southern Illinois have bought an extensive tract of phosphate bearing land in Hickman county, Tennessee, simply to produce ground phosphate rock for their own consumption, and also to protect themselves from the greed and graft of the fertilizer trusts. These farmers have erected a plant which has been in operation for several years, and as the reports from the Illinois Experiment Station show, are securing available phosphorus by using this material in connection with some form of decaying organic matter, such as barn yard manure or peas and clover turned under, and are obtaining their phosphorus at one-fourth the cost of this same element of plant food in acid phosphate or bone meal.

In conclusion let me say that there is conclusive evidence that ground phosphate rock is the only phosphorus carrier that the farmer can afford to buy enough of to effect an increase or permanent maintenance of the phosphorus content of the soil. Of course, farmers may use high priced, highly available fertilizers for the stimulation of plants, but it is absurd to suppose that the farmers can afford to buy enough of these high priced materials to effect an in-

crease or maintenance of soil fertility. The average farmer uses only enough commercial fertilizer to feed one crop, and under this method of treatment land worth \$20 per acre this year is worth no more than \$20 per acre next year. In fact, it is not worth \$20, for the mechanical condition of the soil will be injured by the consumption of the humus in the soil which holds moisture and keeps the soil particles from running together to bake and harden.

By using ground phosphate rock in connection with clover or cow peas, or barn yard manure, all the plant food elements are maintained, and the maintenance of these elements is accomplished at a very low cost; yes, at a cost that any farmer can well afford.

Maurly Co., Tenn.

H. ALISON WEBSTER.

Our correspondent, whose communication we are glad to publish, entirely misapprehended our reply to Mr. Clarke, upon which he comments. The question was, "Will the ground native phosphate of lime (floats) be as effective as sulphate of lime (plaster) in fixing ammonia gas arising from manure, etc.?" This is an entirely different question as to whether the use of "floats" would improve the manure as a producer of crops, which is the point made in commenting on our reply. We are entirely in accord with our correspondent as to the importance of using ground phosphate rock in connection with manure, and are very familiar with all the experiments made with the object of showing the increase in crop productive capacity of manure so treated. For years we have been advising such a use of the floats, and in order to encourage the practice, secured the names and addresses of producers of the floats in Tennessee to be handed to our subscribers, so as to enable them to procure the goods. As a result of this, agencies for the sale of the floats have been established in this State and car loads of the material have been sold here. We, however, do not believe that the value of the floats in any considerable degree arises from any action it may have in fixing the ammonia in the manure, but it is because it increases the supply of phosphoric acid furnished by the manure. Farm yard manure is so much lacking in phosphoric acid to be a complete fertilizer, and anything which will remedy this will be of value. Floats seem especially adapted to meet the need, as the decomposition of the manure renders the high percentage of phosphorus in the rock, naturally in an unavailable or only slowly available condition, almost immediately available. This, and not any ability it may have to fix ammo-

nia, is the secret of the success attained in the use of the floats. We are of opinion that its value as a fixer of ammonia is, as we stated in our reply, very small. Indeed, after a careful consideration of a large number of experiments made with various substances, amongst them floats and plaster, we believe that none of them are worth their cost for this purpose if no other object is attained. Unless free acid is present in the substance used, very little effect in the way of fixing ammonia can be expected. For this reason, acid phosphate is more effective for this purpose than floats, but is not so effective in supplying phosphorus continuously as the floats, hence the floats are to be preferred.—Ed.

HARVESTING THE SOY BEAN.

Editor Southern Planter:

From pointers received from you, and other pointers from books and from other Agricultural Journals, added to a little—just a little—knowledge of my own, we have secured the soy bean crop which, by reason of its bulky nature and its stems so full of juice and moisture, made it quite a serious proposition to cut, cure and save in good shape.

The crop actually requires about six sunny days to cure in good shape so that it can be stacked or stored away in the barn in safety. August was a very rainy month with us, more rain falling during that month than ever before since the Government Weather Bureau was established here. Something over ten inches fell during that month. September came along rather dry. We figured it just about this way, that Jupiter Pluvius, who had been so very lavish with his rain water during August, would naturally want to save a little for the coming September equinoctial, due about the 20th to 25th of September.

We therefore thought to "steal a march" on old Jupe and save our crop between the 10th and 20th of the month. We started the mower at noon on the 10th, and ran it one-half day each day thereafter until the entire crop was cut. Cutting only in the afternoon, there was no dew, and the beans commenced to dry at once.

Our rule was to let the beans lay one full day in the swath, just as the mowing machine left them; one day in the winrow, just as the hay rake left them; then each rakeful was tumbled together into a forkful and allowed to stand another day, and then a half-dozen forkfuls were put together into one large cock and allowed to stand just as long as the weather and other circumstances permitted. These cocks were opened and aired before being hauled in.

An accident to the mowing machine and a breakage of the rake delayed matters a little, and we found ourselves with 275 cocks of the soy beans out at the time the equinoctial storm put in its appearance. It was a dry storm, nothing but wind, and not so very much of that. There was just enough rain to hinder hauling in, but not enough to do any damage.

Our experience with the crop has taught us a few things. It is best to plant thickly in drills and have the drills pretty close together, or sow the beans broadcast in order to save handling such large, woody stems. Just as soon as possible, we shall try the silo, and fill it with the soy beans and with fully matured corn stalks.

We are highly pleased, indeed, with the way the "soy" has gathered in the nitrogen. It has far surpassed the cow pea in this respect, the roots being full of the nodules. It is also much more prolific than the cow pea. From a single seed we have counted, in the presence of witnesses, 346 pods from one stem—one planted seed.

The "soy" is eaten greedily by all the farm stock. Pigs, horses, cows, calves, all leave everything else to fill themselves with the "soy."

From one little patch—seven rows, near the barn—we have been cutting and feeding the green beans to the farm stock for fully four weeks, and there is enough left for two weeks more. The leaves are beginning to shed and the pods turn brown.

We are confident that next year we can arrange it so that we can turn the pigs on to different sowings or plantings of the cow pea and the soy bean, and keep them full from middle of August to middle of October, and in that time every pig will be fat, only needing a few days feeding of corn to harden them off for market, or for home consumption. We are fully confident that with fairly good and intelligent and active management, we can make pork so that the cost of a 150 to 200 pound pig need not exceed two cents per pound.

Our experience from start to finish with "soy" has been satisfactory. Thanking you for your kind advice and information.

I omitted to mention that in stacking or storing away the beans we put in a layer now and then of very dry hay, so dry that it would naturally absorb some of the surplus juice in the stems and in the pods and beans. The fodder or foliage was all cured completely, but there would naturally be considerable juice and moisture in the stems and pods. We did our best, and the weather favored us. A. JEFFERS.

Trucking, Garden and Orchard.

WORK FOR THE MONTH.

The gathering, storing and shipping of all the summer grown crops should now be completed, as soon as possible, as frost may be expected at any time.

As fast as the land is cleared, rake up all trash, leaves and weeds and burn the same. This is a much safer way of disposing of this refuse than burying or composting it, as it ensures the destruction of all fungoid spores and insects and their eggs and pupa, and thus makes certain of no more trouble from these pests another year.

Where orchards and other land has been sown in peas, these should be allowed to die down on the land and a few pounds of crimson clover and vetch seed and a light seeding of oats, wheat and rye be sown amongst the vines. Much of this will germinate and make growth during the winter, being protected by the vines. This growth will conserve the nitrogen gathered by the peas and make humus making matter to turn down in the spring.

Cabbage plants may be set out for the spring crop in all Tidewater and middle sections of the Southern States. The ground should be well prepared for this crop and be made rich with manure and mineral fertilizers. The nitrogenous fertilizers are better applied in the spring as a top dressing just when the plants commence to make vigorous growth. What is needed now is that the plants should get hold of the soil and commence to make root growth. The plants should be set in rows running east and west and be put in on the South side of the rows so they may be protected somewhat by the crest of the rows from the cold North winds. A suitable fertilizer for this crop to be used along with barn yard manure, may be made up of 1,200 pounds of acid phosphate, 500 pounds of muriate of potash, and 300 pounds of fish scrap or cotton seed meal to make a ton. Use at the rate of 1,000 pounds to the acre.

Kale and spinach seed may be sown in rows where the crop is to grow to maturity. Prepare the land well and give a liberal dressing of fertilizer or barn yard manure.

Lettuce plants may be set out from the seed bed in the Tidewater sections in the open ground. In other sections these plants should only be set out where they can be protected with mats in case of hard weather.

Cold frames should be gotten ready for lettuce planting. Clean out the old soil and fill in with new fresh, sweet soil, which should be rich in vegetable matter and should have some cotton seed meal, acid phosphate and muriate of potash mixed in with it, and also some well rotted farm yard manure, so as to be made fairly rich. Lettuce always does best grown with a fertilizer made of farm yard manure and commercial fertilizer mixed. Set out the plants as soon as the beds are nicely settled and shade with mats until the plants have gotten over the transplanting. After they have commenced to grow, keep the lights off during all mild weather and give air freely at other times except when frost is present. Cover at night and during heavy, cold rains.

Celery should now be earthed up to blanch it. Do this work when the plants are dry. Take a piece of soft string and wrap around each plant so as to make them compact and then bank up the earth closely around each plant, leaving only the tops of the leaves exposed. Do not make the sides of the banks of earth too straight, or the earth will slip down and leave the plants exposed. When the banks have settled add a little more soil on the top so as to completely cover all the stalks up to the top of the leaves. Just before severe frost is likely cover the tops of the rows with straw to keep out the frost.

Strawberries may be set out at any time during this month and even during December if the weather is mild and the ground dry. After setting the plant, put your foot on it to consolidate the soil around the roots and few plants will be lost. If the land should be frozen hard during the winter and the plants be thrown out by thawing, go over the plot as soon as it is dry enough and step on each plant and draw a little soil to it. Do not plant so as to cover the crowns.

The pruning of blackberries, raspberries and

grape vines should receive attention during this and the following months up to March. All old canes should be cut out of raspberries and the new canes be thinned out and shortened back. All old dead wood should be cut out of blackberries and the new canes be shortened back. Grape vines should be pruned in closely leaving only two or three canes to the vine, and these be shortened back so as to leave only three or four eyes.

SPRAY EARLY FOR SAN JOSE SCALE.

Since it has come to be recognized that orchards infested with San Jose scale can be protected from injury by proper treatment, and that they must be treated or they will become worthless and even worse than worthless, from the fact that the insects will spread to other orchards in the vicinity, the next most important consideration is, how can treatment be applied in the easiest and most economical way?

The lime sulphur wash is now generally recognized as the standard remedy and though it may be a trifle more effective if applied very late in the spring, our experiments with it during the past two years indicate that fall and winter applications are also quite effective. The weather at this time is often quite suited to spray operations, while the few weeks of good weather available for this and other work in the late spring is not likely to prove sufficient to complete it. Therefore, fruit growers will likely find the fall and winter applications more satisfactory. We strongly recommend that this wash be applied as soon as possible after the first of November.

Select only the best lime. It should be as free from magnesia and other impurities as possible, and should be used while it is fresh. Chemical study of the wash and the ingredients from which it is made indicates that much of the sulphur will be lost if one attempts to use impure or air slaked lime to prepare it.

These tests are discussed in Circular No. 1, New Series, just issued by the Crop Pest Commission. If this publication does not reach you by the first of November, apply to the undersigned.

J. L. PHILLIPS,
State Entomologist.

Blacksburg, Va.

GREEN MANURIAL PLANTS FOR THE SOUTHERN STATES.

The great value of green manures for the light and humus-lacking soils of the cotton region is now generally appreciated by all the more intelligent farm-

ers. It is well known that the soils lacking in humus burn out in dry summer weather, rarely giving over half the crop that similar soil well stocked with humus affords, when both soils get the same amount of fertilizer and tillage. There is an unfortunate tendency among cotton growers to depend too much upon fertilizer for making the crop. Commercial fertilizer is always profitable when applied to soil rich in humus, but on humus-lacking, and therefore droughty, soils, neither commercial fertilizer nor anything else can ensure a good yield in dry seasons. Owing to the mild winters of the cotton region, there is no reason why all cotton fields should not carry a winter crop of some legumine, which will furnish a good supply of vegetable matter to turn under in spring.

Of the many legumines available for winter growth in the cotton region, probably the best is crimson clover—*trifolium incarnatum*. This clover is perfectly hardy and adapted to the soils of the cotton region. It generally does best when sown in early fall. The seed in the hull or chaff is more desirable than the cleaned seed sold by seedsmen. Native-grown seed is far superior to imported seed. The seed in chaff may be sown on surface of ground if there is a growing crop of any kind upon the land. If cleaned seed is used, it must be covered in. The seed in hull, sown on a Bermuda grass or crab grass sod, never fails to make a good catch. It is usual to sow 45 pounds of seed in chaff or 15 pounds of seed cleaned per acre.

When the crop is left upon the land, until it is ready to cut for hay, or until it is in full bloom, which is the proper condition for cutting, the yield is from 1 1-2 to 2 tons of cured hay per acre. The feeding value is equal to the best red clover hay, but is not quite so palatable. If the clover is allowed to stand until the heads turn brown or until the seed is nearly ripe, the feeding value is deteriorated, and at the same time an element of danger is introduced. The stiff, prickly hairs of the ripe seed hull are liable to stick in the mouths or stomachs of animals, and this has caused the death of a few horses and mules.

When the crop is cut for hay, the roots and stubble remain to furnish humus, but on most sandy soils this is not sufficient to replace the humus annually burned up in making a crop of cotton. Therefore, the manure made by the stock fed upon the clover hay should be carefully saved and used upon the subsequent crop.

GERALD MCCARTHY,

North Carolina Dept. of Agriculture.

Live Stock and Dairy.



PARADE OF PRIZE WINNERS, RED POLLS, MR. F. H. HAWLEY, OHIO.

LIVE STOCK AT THE VIRGINIA STATE FAIR.

Editor Southern Planter:

The incoming tide of prosperity has brought many things in its wake, but nothing of more importance than the re-establishment of the State Fair on broad-gauged lines. The public spirit and energy displayed by the Hon. Henry C. Stuart and his associates cannot be too strongly commended, and the splendid success achieved in the face of unprecedented weather conditions is cause for sincere congratulations. It is a tremendous undertaking to secure the necessary funds for the establishment of a State Fair and bring about that harmony of action and "community of interests" spirit which is essential to success. When an achievement of this kind is accomplished in a comparatively short space of time, as was the case with the Virginia State Fair this year, it speaks eloquently for the personality of the men behind the movement and their splendid business talents and unsacrificing efforts for the public welfare.

I was assured that the construction of the race track and the buildings on the State Fair grounds was accomplished in a little over six weeks. This is a record of which the Fair management might be proud, for though much remains to be done, there are many excellent buildings on the grounds, and some of them of superior merit for the purposes for which they were designed, notably, the special barn for cattle, but as the editor has asked me to write a short review of the live stock exhibit, it behooves me to confine myself specifically to that task.

While there were many excellent exhibits on the Fair grounds, it was generally conceded that the live stock exhibit was probably the most comprehensive of its kind ever witnessed in the South, and one of the most instructive and interesting features of the Fair, and it is a matter for regret that thousands upon thousands of farmers could not have had the opportunity of seeing the magnificent individuals representing all the leading breeds of beef and dairy cattle, which were on display. There were in round numbers something like 1,200 entries of cattle, sheep and swine, the cattle leading. There were representative herds of Shorthorns, Aberdeen Angus, Herefords, Galloways, Red Polls, Jerseys, Guernseys, Ayrshires, Holstein Friesians, and Dutch Belted. In all ten breeds were displayed and the competition in the several classes was keen. The individual Shorthorns exhibited numbered over fifty, and the display was a highly creditable one. Some of the largest exhibitors were J. G. Robbins & Sons, Horace, Ind.; F. W. Cotton, Manilla, Ind.; Dr. D. M. Kipps, Front Royal, Va. The Burks Garden Cattle Co., of Burks Garden, Va., exhibited some splendid animals, and the fat cattle shown by Hon. Henry C. Stuart attracted much attention and favorable comment.

There were two excellent herds of Aberdeen Angus displayed. They were the property of B. B. Johnson & Sons, Atlanta, Ind., and Boyd & King, Hillsboro, Ohio. There were some very fine individuals in these herds, and they attracted much attention.

Mr. G. F. Blandy, of Whitepost, Va., displayed



PARADE OF PRIZE WINNERS, SHORTHORNS, BURKE'S GARDEN CATTLE COMPANY, VIRGINIA.

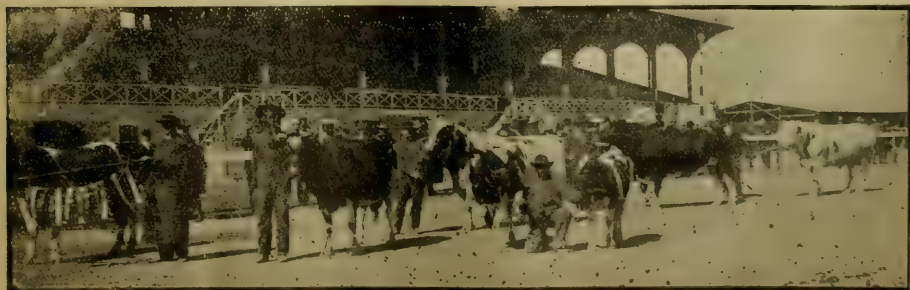
a creditable lot of Herefords, including not only the famous Hereford bull Acrobat, but many of his get as well.

The quality of the Red Polls was certainly up to the standard, two excellent herds being shown by H. M. Luttrell, of Delaplane, Va., and F. E. Hawley, LeRoy, Ohio.

Dairy cattle were shown in large numbers. McLaury Bros., of Portlandsville, N. Y., had some very fine Jerseys on exhibition. James McK. Merryman, of Maryland, showed a premier herd of Guernseys that was certainly worthy of special comment. J. F. Converse & Co. and W. P. Schanck, both of New York, exhibited large and attractive herds of Ayrshires. They were a breed new to many of our Virginia people and were greatly admired, and justly so. Many of the individuals possessed superior merit from the dairy standpoint. Dr. S. A. Robinson, of Coveseville, Va., and Mr. Carpenter, of Pennsylvania, showed two large and creditable herds of Holstein-Friesians, a breed well known in many sections

of the State and prized for their persistent milking qualities. One fine herd of Dutch Belted cattle was shown by Mr. Arkcoll, of New York. These cattle, owing to their unique color markings, were greatly admired.

It was a pleasure to those connected with the live stock department to notice the great interest taken in the cattle. The barns were constantly thronged with visitors; so much so in fact that it was almost impossible to go from one section to another at times. It was certainly encouraging to see this admiration for improved live stock, for those who have studied the agricultural interests of Virginia realize that the development of animal industries is one of the most pressing needs of our agriculture; the one in fact that will enable us to manufacture profitably and more extensively the crops grown on our farms and so obtain supplies of farm yard manure to add the needed humus to our soils exhausted through many years of culture in hoed crops. The ribbons in the beef cattle department were awarded by Prof.



PARADE OF PRIZE WINNERS, HOLSTEIN-FRIESIANS.



PARADE OF PRIZE WINNERS, HEREFORDS, TULEYRIES FARM, VIRGINIA.

H. W. Munford, of Illinois, and in the dairy cattle department by Prof. H. H. Wing, of Cornell University. It is needless to say that these gentlemen performed their services in a highly satisfactory manner. The exhibitors in the cattle department with their post-office addresses and the premiums won follow:

J. G. Robbins & Sons, Horace, Ind., \$300.
 James Frantz, Bluffton, Ohio, \$194.20.
 Frank W. Cotton, Manilla, Ind., \$145.
 B. B. Johnson & Sons, Atlanta, Ind., \$184.
 D. M. Kipps, Front Royal, Va., \$390.50.
 McLaury Brothers, Portlandville, N. Y., \$329.50.
 Boyd & King, Hillsboro, Ohio, \$175.
 H. M. Luttrell, Delaplane, Va., \$76.
 F. E. Hawley, LeRoy, Ohio, \$203.50.
 W. P. Schanck, Avon, N. Y., \$233.50.
 J. F. Converse & Co., Woodville, N. Y., \$153.50.
 Dr. S. A. Robinson, Coveseville, Va., \$130.
 George M. Carpenter, Wilkes Barre, Pa., \$257.50.
 James McK. Merryman, Cocketsville, Md., \$292.

W. W. B. Arceoll, Peapack, N. Y., \$153.
 Villa Hawkins, Fawn Grove, Pa., \$18.10.
 G. F. Blandy, Whitepost, Va., \$443.50.
 A. S. Grant, \$15.
 H. C. Stuart, Elk Garden, Va., \$63.50.
 Burks Garden Cattle Co., Burks Garden, Va., \$173.50.

The display of sheep, while quite extensive, was not so representative as in the case of cattle. While the entries were large in this department, many of the exhibitors failed to reach the Fair grounds in time, owing to the dates conflicting with other fairs, a matter which it is to be hoped the management will be able to adjust in a satisfactory manner another year, as it undoubtedly cut down the display in at least two out of the three more important live stock departments. The ribbons in this department were tied by the inimitable Dick Stone, of Stonington, Ill., a man who knows sheep from the ground up, and is one of the most extensive and successful breeders of Oxforddowns in the world. The judge comment-



PARADE OF PRIZE WINNERS, DUTCH BELTED- LANCECOTE FARM, NEW JERSEY.



PARADE OF PRIZE WINNERS, AYRSHIRES, MR. W. P. SCHANK, NEW YORK.

ed favorably on the excellence of many of the specimens shown, and it is a pleasure to record that a number of the best cattle, sheep and swine were retained in Virginia, and from what the writer could gather, many of our breeders are now thoroughly aroused, and are even at the present time preparing herds for exhibit at the next State Fair. This is the best evidence that the State Fair will be of invaluable service to the agriculture of the State. Competition always engenders a friendly rivalry and a desire to excel; in other words, it stimulates ambition and so will build up and foster our live stock interests. There is no reason why good representatives of all the animals displayed at the Fair should not be bred and owned in this State, and if the State Fair can arouse our farmers to the importance of improving their live stock and of making Virginia famous as a breeding ground for animals of superior merit, it will have fulfilled its purpose a thousandfold.

Most of the sheep exhibits came from outside the State, though Mr. Westmoreland Davis, of Leesburg,

Va., showed some very fine Dorsets. The list of exhibitors in this department is given below:

Homer Allison, Mercer, Pa., \$5.
 W. A. McCoy & Sons, Mercer, Pa., \$57.10.
 Keener & Maxwell, Slippery Rock, Pa., \$266.
 H. L. Wardwell, Springfield Center, N. Y., \$124.
 W. H. Compton & Son, Munroe, Ohio, \$108.20.
 Westmoreland Davis, Leesburg, Va., \$25.
 J. C. Williamson & Sons, Xenia, Ohio, \$117.
 Boyd & King, Hillsboro, Ohio, \$69.
 P. Wartz & Sons, Osborne, Ohio, \$114.80.
 D. B. Watt & Son, Xenia, Ohio, \$118.80.
 M. S. Valentine (Angora Goats) Rock Castle, Va., \$84.

The exhibit of hogs was very good, all classes of the swine department being filled, and in some the competition was keen. Some excellent animals were shown and the judges found it quite difficult to decide some of the awards in a manner satisfactory to the contestants. The ribbons in this department were tied by Messrs. Brown & Klever, of Ohio. Strange



PARADE OF PRIZE WINNERS, SADDLE HORSES.

to say, there were comparatively few exhibitors of swine from Virginia. The writer was somewhat surprised at this because he has seen some very excellent specimens in various parts of the State, and cannot understand why a more representative exhibit was not made by home breeders. Some of our local men who intended to exhibit were prevented from competing by the hardest kind of luck. It is safe to say that they will be in plenty of time another year and that the competition in the swine department will be much keener, and that a good per cent. of the money offered in premiums will remain in the State next time. Below are given the names of the principal exhibitors in the swine department:

G. F. Blandy, Whitepost, Va., \$12.
 W. A. McCoy & Sons, Mercer, Pa., \$4.
 J. E. Harris, Wyndham, Va., \$8.
 M. C. Patterson, Richmond, Va., \$18.
 William M. Crouch, Dover Mines, Va., \$8.
 A. C. Grieve & Sons, Lucasville, Ohio, \$191.
 W. T. Dever, Xenia, Ohio, \$163.
 Mahon Brothers, Osborne, Ohio, \$174.
 Short Brothers, Walkersville, Md., \$90.
 C. R. Cressman, Bursonville, Pa., \$66.
 F. A. Moore, Fulton, N. Y., \$82.
 R. S. Hartley, Younksville, Ohio, \$183.
 Munro Yohn, Westminster, Md., \$460.
 Vallie Hawkins, Fawn Grove, Pa., \$161.

The management found it exceedingly difficult to provide housing for such a large and representative exhibit of live stock. The cattle barn was considered ample when first constructed, but the overflow in this department caused the management to turn over one of the exhibition horse barns to the cattle, and at last it was found necessary to construct a special hog barn, and to build a large number of pens over which tents were erected to provide temporary quarters for the swine. While the weather conditions of the week were unusually favorable, ample provision had been made for judging under tents in case of bad weather.

Through the courtesy of the Hon. Henry C. Stuart, the visiting stockmen were entertained at dinner at the Jefferson Hotel, where a most delightful evening was spent, and it is a pleasure to record that all the exhibitors express themselves as highly delighted with the cordial welcome and many courtesies extended to them by the Fair management and signified their intention of exhibiting at the Virginia State Fair another year. It is to be hoped that the management will be in position another season to offer

third premiums, which would add much to the zest of the competitions, and also enable many comparatively small exhibitors to pay at least a part if not all of their expenses. No doubt these and many other important considerations will be taken up by the management. The writer, who has had some experience with various fairs and an opportunity to visit those in many sections of the country, feels justified in saying that the exhibit of live stock was a most creditable one, and that if this department of the Fair can be maintained on a high level, it will add much to its value as an educational factor and do much to give it a high standing in all sections of the country.

In conclusion, it is only proper to say that if a display of the general excellence of the one this year can be duplicated and improved upon another year, it behooves every farmer in the State to make an effort to attend the State Fair and see for himself the magnificent specimens of live stock which have been produced by careful feeding, skillful breeding and wise management. It is an education in itself. There are many who would not believe that animals of such wonderful form and quality ever existed, and optical lessons are therefore worth more than pages of written matter, for as the old axiom puts it, "seeing is believing," and besides that, it is mighty convincing as well. Give the boys and girls from the farms an opportunity to form correct ideals, to get proper conceptions of what they may achieve through their own individual efforts, and Virginia will go forward by leaps and bounds as a producer of live stock of the highest quality.

ANDREW M. SOULE.

PREPARE FOR THE WINTER.

Editor Southern Planter:

The cold winds of the fall are with us and the sheep begin to seek the warm spots in their pastures. It is fine to watch an old bell ewe sniff the air and then march off at the head of the flock to some point where the wind cannot come. The old ladies of the flock know that hard times are not far off when they sniff that wind. Cold? What is cold to a sheep with its downy robe of wool? Our flocks have no fear of the cold, if you will keep their clothing dry, protect them from biting winds and give them plenty to eat. If you ever had to sit down in a cold room in wet clothes, you know what it means to keep your sheep dry. I know this is the ideal plan that some

farmers cannot well provide, but it is the wise man who can keep his sheep out of the wet in cold weather. This will save colds, catarrh and many other form of sickness all but to common in our flocks.

You cannot keep your sheep dry without a shelter. So build yourself a sheep shed, if you love your sheep. You do not want a close shed. Have one open to the South and well ventilated. Sheep cannot stand close, ill-ventilated quarters. Be sure not to have cracks in your shed. Admit fresh air at the bottom of numerous doors and let it pass freely out at the top of the shed, or at the opening toward the South. Sheep cannot stand draughts. In another number I will discuss plans for a cheap and practical shed. Build a sheep shed, if you want to succeed with your sheep. You will certainly need it before January and this is a good season of the year to build, as farmers have seasons of rest between corn shucking days.

To provide for the winter the farmer must have the proper food for his sheep. This means the feeds that are best suited to maintaining the health and usefulness of the sheep. Many a farmer feels that he is ready for winter if his mow is filled with nice timothy hay and his crib is filled with corn, but if he is planning to winter a breeding flock on such food, he had better sell out. This would be the cheapest plan. If you were fattening wethers or lambs, you might work this diet, but never on a breeding flock. It is not good for any kind of sheep. Sheep do not like timothy hay and will not eat it until they are forced to it. How wise those superintendents of feed yards become, where sheep are unloaded for watering and feeding. A few bales of timothy hay will go on forever, if it is gathered up clean. Sheep won't eat it at all in the summer time and it takes hard times to bring them to it in winter.

You must have a proteid diet for breeding ewes. Some corn can be used to advantage, but let the grain ration be largely oats and bran. When you have good alfalfa, cow peas and nice clover, you will not need so much grain. Let the bulk of your hay be clover. You will find your sheep relish this and they do well on it. I would hardly know what to do with a lot of ewes in winter without clover hay. The best substitute in Virginia is cowpeas, and I must say that this is alright, provided you got the vines cured well, which was a difficult undertaking during this past summer. Some corn fodder is alright, though you will find that sheep will eat of it sparingly, if they have good supplies of clover hay. Fortunate is the farmer who can afford a feed of cotton seed meal

once or twice a week. Soy beans make a fine substitute for this and bring other valuable constituents into the winter ration.

But what about green food for winter? Did you have rape during November and December when the grass was getting brown? You could have had it at little expense in your corn fields. This would be better than allowing them to lie idle and grow up in weeds. The heavy frosts of December will in most parts of Virginia kill rape, but I think in Georgia and North Carolina that rape would afford green food all winter. Try it. Following rape should come rye, winter oats, or barley. Rye is a royal good thing for sheep all winter and in the spring. Your wheat fields will afford considerable pasture and your sheep will not injure the wheat at all. You may pasture it up to the middle of March. Rye and rape sown together in the corn field will make grand winter pasture.

Lastly, roots or succulent food should be provided. Farmers in Virginia are slow to learn this. The secret of the great, growthy, healthy sheep of England it right here. They feed roots all through the winter. Nothing will keep the digestive organs in better form and nothing will maintain bloom in your flock like feeding roots. Sheep need just this form of food. You have noticed the longing for water in winter. This is largely not natural. The craving indicates that something is wrong. Feed your sheep turnips, or beets, and observe how soon they stop this running around after water. Again, roots are fine for producing milk in the winter, and men who raise winter lambs should try them. Of course, roots are not so necessary in those cases where green pasture in winter is abundant.

I have endeavored to lay before you briefly some of the things you should have in preparing for the winter. There is just one further observation at this time. The flock should be watched very carefully and be put on a grain ration, before the sheep start down hill. The grasses of early winter are not nutritious and a sheep may get a stomach full without getting half enough to eat. It often happens that sheep begin getting thin along in December, before the time for winter feeding seems to have come. Better be careful about this, for it is hard to stop an animal and get it going up in condition when once it starts down hill. Right here is a very common mistake in feeding, and it takes careful management and good observation to know just when feeding should begin. It is evident that the grain ration

should be increased gradually. Begin with one feed per day and make this a light feed. Above all things remember that you must not wait until sheep will eat hay to feed them grain. As long as any grass can be had at all about the pasture the sheep will not eat hay, unless it is very choice hay. Good clover will be tempting at any time, and so will alfalfa, but such things are rare. The ordinary farmer's sheep hay generally consists of one part timothy, one part clover, one part briars, and one part weeds, and it is too much trouble for the sheep to pick out the clover.

Decatur, Ga.

H. B. ARBUCKLE.

KEEP POSTED.

Editor Southern Planter:

It is strange how slow farmers, especially in the South, are to catch up with the times, as instanced by their negligence in not keeping posted on the live stock question.

Almost every day you will hear some farmer say that "a 2,000 pound horse is too large; I would not patronize such a large horse." Now, I can easily recall the day when I thought a 1,600 pound horse too large to breed to, but if I had kept up with the times, I would have patronized only horses of extreme weight, and what a difference it would have made in a financial way. I would to-day have had dollars where I haven't pennies. When Louis Napoleon was imported and taken to Illinois, numbers of progressive farmers refused to breed to him, and yet he never weighed as much as 1,600 lbs. Those who did not think him too large, and got his services, made money, and I know two men who kept their largest and best mare colts by him and every year selected a larger stallion, and to-day they are wealthy men, and both of them claim that the most money they ever made and the easiest was from breeding big drafters, and one of them is to-day using a 2,400 pound stallion, and has over eighty large, pure bred mares, and refuses to sell one of them. He has over thirty mares that scale a ton. This breeder is now a very old man and says any good breeding Percheron is worth more than \$1,000. The other man has about twenty head of pure bred Percheron mares, and leases out his farm and lives in town where he is president of a prosperous bank, and he says he has always refused to sell his best fillies, and to-day he would borrow money before he would dispose of his twenty brood mares for \$20,000. He claims to have sold \$5,000 worth of colts from his oldest mare,

which is thirteen years old, and has lost two of her colts, and he has still two mares out of her on the farm. He also claims that he has never gotten a fancy price for any of his colts, and that as he does not advertise any more that there are people in the county who do not know that he has a Percheron because he has been living eight miles from the farm and in a city for seven years. These horses are worked regularly in his 600 acre farm, and the tenant has no interest in the offspring.

Now, fellow countrymen, keep posted and do not let the idlers and "know it alls" control you. Think for yourself and read good farm and stock papers and watch the markets and you will learn that the great difference in prices of cattle and horses is due to quality and breeding. No scrub will pay more than the cost of raising, often not that much. Only the extremely wealthy can afford to lose their time and money experimenting with "scrubs" and race stock.

Rockingham Co., Va.

JOHN F. LEWIS.

MOUNTAIN SHEEP.

Editor Southern Planter:

Through the columns of your valuable Journal I desire to express my personal thanks to Mr. M. A. Dunlop of Kay county, Oklahoma, for the information he has given me in the October issue as to where I will be likely to secure some of these old fashioned West Virginia "mountain sheep." I have written the parties whose names he gives and hope to be able to secure some of these peerless sheep. As Mr. Dunlop says they were the best mothers in the world. I had forgotten it when I wrote the other letter published in your September issue, but some of these red legged sheep would have "blazed" faces like a blaze faced horse, and there would sometimes be a few black sheep in the flock, and I have seen the lambs coal black with white faces and white tip to tail. They were a very prolific sheep, the ewes nearly always bringing twin lambs. I have seen ewes have a white lamb and a red one—twins—by her side at the same time.

I see nothing in these days of "thoroughbred" sheep, with the energy, health, vitality and hardihood of these magnificent mountain sheep of my boyhood, and I hope, through the kindness of Mr. Dunlop and the Planter, to shortly be the proud possessor of a flock of them.

Kendalia, W. Va.

O. D. HILL.

THE CHURN ON THE FARM.

Editor Southern Planter:

Along the line of farm conveniences, we have been experimenting for some time with the object in view of doing good work with less labor. Our work is intensely practical, since we are after the best with the smallest cost. Farmers well know that labor is becoming less reliable and more costly each year. As a result, farmers continue to leave the farm for the towns and cities.

Handling the milk and butter on the farm is one of the farmer's "hard jobs." The man with the large dairy will say at once, why not purchase a separator and a churn and use a steam or gasoline engine for power? But the farmer says this costly outfit will not pay to produce milk and butter for family use. There are many farmers situated too far away from the markets to make butter for sale, but they must have plenty for home consumption.

It will surprise any one to travel over the State among farmers and notice the large number of old fashioned churns still in use in this age of invention and improvement. The old churn and dasher have made young people "tired of the farm."

I think we have solved this part of the problem to our own satisfaction, at least. We are now using the "barrel churn," while two old fashioned churns with dashers are placed "away in the shade without a job." They have "served their day and generation" and caused many, many backaches for a few pounds of butter. Our seven year old son turns this barrel churn and brings the butter in from fifteen to thirty minutes. Our three children do practically all the churning, and do not call it hard work. One can sit down on a chair and churn while the back is at rest. Of course, if there is a machine for producing power on the farm, the churn could easily be attached to it. While I am not an agent for any machine, nor have any financial interest in one, I think the farmer who would like to improve his methods of making butter on the farm would do well to investigate this churn, especially since the cost is but little above that of the old fashioned churn.

We have in use also a small hand separator, and while it seems to give satisfaction, still it is too early to recommend it. We want to test it further.

Montgomery Co., Va.

R. H. PRICE.

It is not the cow that eats the most or the cow that eats the least that is the best cow, but the cow that makes the best use of what she does eat.

DOES IT PAY TO BUY FEED FOR STOCK?

Editor Southern Planter:

This is a very important question, and I have never yet come across a farmer, whose answer has not been very positively in the negative. On the other hand, my own decided opinion and conclusion from some years' experience in buying feed for stock, is that under certain circumstances and conditions it does pay.

I am writing this article with the object of having a discussion, through your columns, on the subject in order that we may get to the truth and bottom of the matter.

For the sake of argument, we will take a farmer who grows 1,000 bushels of corn and decides to sell 500 bushels and feed to his hogs the remaining 500 bushels.

I purchase the 500 bushels he has for sale. Who makes the greatest profit or loss on the feeding, myself or the farmer? The man who grows and feeds, or the man who buys and feeds? Say the 1,000 bushels of corn is valued at \$500; the 500 bushels the farmer kept is worth \$250, the corn he sells me is also worth \$250. In what way does my cost of feeding exceed that of the grower of the corn? My answer is, by the cost of team work and labor in hauling the corn to my farm.

So if my statement is fact, the cost of feeding hogs is very little more to me than the grower, which I consider is counterbalanced by my being able to choose the cheapest and my own time for buying my corn.

My friends may say that the corn will not cost fifty cents per bushel to grow, and there they get the advantage over me.

The growing of the corn and the feeding of stock are two different departments in farming, and should not be mixed. If the farmer clears over cost of production \$100 on the growing of 1,000 bushels of corn, this amount should go to the credit of the corn crop account in his books. He can get from me \$250 for the portion he sells me, and, therefore, the 500 bushels he keeps and feeds is of the same value. What he realizes over \$250 on the grain fed is gain, and under is loss, on feeding.

What profit or loss is realized on feeding stock at all times depends on the state of the market. Some times it is satisfactory, at other times the opposite; precisely the same as any other line of business.

I am trying to show it is possible to buy feed for stock to a great advantage in competition with the

man who grows his own, and I go further still and assert that sometimes I have the better of the corn producer by buying below cost of production.

I have purchased corn in Albemarle county to feed my stock at \$1.30 per barrel (5 bushels). In that case, where does the profit to the grower come in over the buyer in cost of feeding stock

I want enlightening on this buying feed question, so if I am on wrong lines, I can stop at once. I have for seven years been looked at by my neighbors as a little off in the farming line for buying feed for pure bred Berkshire hogs, the pigs from which have sold at several times above the price of those kept by farmers about here who raise their own corn.

I am not ashamed of my ignorance, however, as I have only done what I thought would pay me, so sign my name.

Albemarle Co., Va.

ROBERT HIBBERT.

IMPORTATION OF CHOICE GUERNSEYS. FOR VIRGINIA.

The recent importation of fifty-one choice young Guernsey heifers by Mr. Westmoreland Davis, for his herd at Morven Park, Leesburg, Va., includes some animals of the best Island breeding. Mr. Davis was very careful in his selection. He aimed to secure young heifers, not only representing good breeding, but in calf to prize winning bulls. Many are bred to Galaxy Sequel, a bull first on the Island in his class. On looking over the pedigrees of the animals, we find many representatives of the France and Masher breeding.

The importation includes a magnificent yearling bull, France's Jewel 8th, now No. 11251 of the American Register. His sire was the noted Masher's Sequel, and his dam, France VIII, a great cow and of a fine strain.

The young heifers were uniformly good. They are of an age and so bred as to acclimate well, and should place the Morven Park herd among the foremost in the country.

Mr. Davis now has about 150 Guernseys and plans to have at least 400. His purpose is to divide them into small herds on different parts of the estate, and says nothing will be left undone to make his herd the greatest Guernsey herd in the country.

The herd is now headed by three fine bulls: Top Notch 9023, a son of Imp. Itchen Beda 15627, Adv. R. No. 136, with a year's record of 10642 pounds of milk and 548.7 pounds butter fat; Mainstay's

Glenwood Boy 7607, a son of Jewel of Haddon 11259, Adv. R. No. 92, and by Glenwood's Mainstay 6067, a son of Mainstay and Glenwood Girl 6th; France's Jewel VII, the one just imported.

The cream from Mr. Davis' herd is sold to a fancy trade in Washington and New York.

A TROUBLESOME CATTLE DISEASE.

Editor Southern Planter:

For the benefit of the readers of your most valuable journal, I send instructions how to cure contagious apthia in cattle, which is a very troublesome disease and highly contagious. There have been quite a number of cows affected with the disease in this community this summer, and I have not seen a single person who knew anything about the ailment or any remedy.

The disease affects cattle, sheep and hogs. It attacks the mouth and feet and will also attack the teats of cows. The mouth will be found hot and covered with blisters, the tongue and lips being also affected. The blisters burst and the surface becomes inflamed and swollen. In aggravated cases, the tongue protrudes from the mouth and is covered with ulcers, which suppurate and cause the tissue to slough away. The disease frequently commences in the hind feet, in consequence of which the animal is continuously stretching out first one and then the other hind foot and shaking them. On examination, blisters and watery pustules are found around the coronet and between the claws. The parts are inflamed and swollen, and the animal cannot be persuaded to rise. In some cases, the feet become ulcerated, the hoofs slough away, in part or wholly leaving the bones exposed to view. In such conditions there must be much suffering, with high fever, eyes red, lungs congested, breath foetid. In milking, cows teats and udder become inflamed and ulcerated. Abscesses are formed and sloughing takes place, which, of course, renders the milk unfit for use. When the disease appears the first step taken should be a separation of the sick from the healthy cattle. Give the apparently healthy cattle two ounces of sulphate of soda each per day as a preventative. The sick ones should have one pound of Epsom salts each at once. A mouth wash is to be used composed of and made as follows. Borax, one ounce; tincture of myrrh, one fluid ounce; water, one quart, mix, wash the mouth twice each day. The feet should be thoroughly cleansed with water, then apply with a feath-

er. Oil of Vitriol, one ounce; water, four fluid ounces, mix well, apply twice daily. If the teats are affected, a weak solution of half a drachm of carbolic acid in a quart of water can be used with good effect, following with a dressing of glycerine.

I have used this remedy on some very bad cases, and have never known it to fail to effect a cure.

Wise Co., Va.

E. L. COUSINS.

We have heard of a considerable number of cases of this disease this year. It is caused by a fungoid growth on the grass induced by the excessive rain. Cattle suffering from the disease should be kept off grass and be fed bran mash and hay and blade fodder cut up finely until the mouths are healed.—Ed.

VIRGINIA HOLSTEINS AT THE FAIRS.

Editor Southern Planter:

Thinking you and some of your readers might be interested to learn how Virginia Holsteins represented our State at the fairs in competition with much larger herds from Northern States, I send you the experience of Hygeia Farm herd, (Coveseville, Va.).

At the Roanoke Fair, I had cattle entered in seven classes and won seven first prizes, including sweepstakes cow and bull, also herd prize, and two second prizes. At Lynchburg, I won two first prizes, first and second sweepstakes, six second prizes, and three third prizes. The following letter will explain why I did not get three more first prizes and probably two more sweepstakes:

Lynchburg, Va., Oct. 5, 1906.

This is to certify

That the writer was judge of the dairy breeds at the Interstate Fair of Lynchburg, Va., and that in the show of Holsteins he was induced, through misapprehension, to leave the cow known as "Jessie Vee-man C." out of the money and even a careful consideration for any place.

Learning of a possible error, careful examination and investigation convinces me that the said cow should have been placed first and carried the influence of a first money cow in all after shows, and, as the Show was decided, would have been sweepstakes cow in said Show justly and without question.

This statement is made in justice to the owner of said cow and the position she should have taken at said Fair.

Walter J. Quick, Judge.

At the Virginia State Fair, out of ten possible

firsts, I won eight, including two championships, also two second prizes.

It would take too much space to go into detail, and I think the above is enough to show that they brought no discredit on the Old Dominion. Northern breeders were surprised to learn that a number of my cows have increased their official records since coming South. They were the first cows officially tested in Virginia, and many Northern breeders have thought that dairy cattle would not do as well in the South as in the North. They have much to learn about the South, and this is only one lesson.

Coveseville, Va. SAML. A. ROBINSON, M. D.

THE STATE FAIR POULTRY EXHIBIT.

Editor Southern Planter:

In reply to your favor in regard to poultry at the Virginia State Fair, will say that the Poultry Department was one of the leading features of the Fair and one of the largest poultry shows held in the South, if not the largest. There were 1,462 birds entered. 92 varieties. The S. C. White Leghorns being the largest class, with 16 pens and 72 single birds—equal to the largest New York shows. Brown Leghorn, Plymouth Rock and Wyandott classes were well filled with some fine birds, representing nearly every county in the State. A large number of nine birds changed hands at a nice sum. I have no doubt but that this winter and next spring will be a great harvest for the poultrymen.

S. S. STANSBURY,
Manager Poultry Dept.

The planting of orchards should commence at once and be continued as long as the land is in good order. In our last issue, we wrote fully on this subject and refer our readers to that number.

Have the fence around the barn yard made good. "Bull proof and pig tight," and with a good gate hung so that it will close itself after being opened, and then you will know where to find your stock when they are outside the buildings, and they will be kept from wandering over the farm doing damage by punching water holes in the plowed land and injuring fall-sown crops by tramping them. See to it that the yard is well drained so that it will not become a bog whole in wet weather, and have the water from the roofs carried off outside the yard so that they may not leach the plant food out of the manure.

The Poultry Yard.

POULTRY AT THE FAIR.

Notwithstanding the fact that this season of the year is the very worst at which to exhibit poultry from the fact that nearly all flocks are in poor feather on account of moulting, the early hatched young cockrels and pullets being scarcely yet in full feather and the old birds, most of them, almost naked, yet a very representative and creditable show of birds was staged at the State Fair. More than fourteen hundred specimens of all the leading breeds were entered, and in most of the classes there was competition. Whilst Southern Breeders were not as well represented as we could have wished, yet many local breeders had several pens on exhibition, and succeeded in capturing some of the premium money against old Northern and Eastern breeders. Our Southern breeders have as fine stock as any in the country, and when in good feather they need not fear competition with any in the land. A reference to our advertising columns from this time on up to the months of May or June, will convince any one desiring to go into the poultry business that he need not go out of this and the adjoining States to get all the varieties he desires and these of the finest strains in the country. There has been a marvellous development in the poultry industry in the South during the past five years and the indications are that the business is likely to be yet much more largely extended. The South is an ideal country for poultry keeping, as our mild, short winters make it possible for the birds to have range and green pastures all the year round, and these are prime factors in securing good returns in the egg business and in the incubators and brooders. The early broiler business can also be most successfully carried on here at much less cost than in the cold North, and our excellent shipping facilities by road and water enable the birds to be put into the best Northern markets at small cost. These factors are daily making themselves felt and pushing forward the business of the "chicken farm." We learn that the local Poultry Association of this city is making arrangements to hold another exhibit of poultry in December or January next, when the birds will be in good feather, and we look to see this show better patronized by Southern breeders. Breeders cannot afford to neglect any opportunity of showing their birds. It is the best advertisement they can have in a country where the finest specimens of the different breeds are but little known to the great bulk of the farmers and their wives. Once get these people in-

terested in pure bred poultry, and the demand for birds and eggs will be almost unlimited.

A RECORD IN EGG LAYING.

A Washington despatch, dated September 24th, states: The world's champion hen has just laid 291 eggs since October 5th, 1905. She is finishing strong and steady and will pass under the wire with a round 300 eggs to her credit for the year.

This hen belongs to E. W. Starnell, Alexandria, Va., and has been officially recognized by the Department of Agriculture on account of her record as entitled to the egg laying belt. The former record, held by a Salt Lake City hen, was 267 eggs in a year. The Mormon hen is thus put into the selling plater class by the Virginia model of poultry industry.

Mr. Starnell figures that except for the moulting season his hen has produced an egg every twenty-four hours throughout the year. She is not much for looks, couldn't be told at a glance from any common ninety egg to the year hen, but for industry she is the world's model hen to date.

May her flock increase is the benediction of the Department.

According to the census of 1900, the chicken population of the United States was two hundred and thirty millions, while turkeys numbered six and one-half millions, geese five and one-half millions, and ducks nearly five millions. It is estimated that three hundred million chickens and other forms of poultry are consumed in this country each year—an average of not less than four per capita. Chickens are generally first choice and the first to run out on the menu of the hotel and the restaurant. The market for first class poultry and eggs has never yet been overdone. There is no more staple and popular article of food, and it is safe to expect the demand to develop in proportion to the increase of our population and to the care and intelligence with which the markets are supplied. No stock on the farm brings better relative returns for expenditures than poultry, and there is no better place for the industry than the Southern States.

It may not be generally known that the turkey is a native bird of the South, and was first known to Europeans through voyagers to the Southern colonies, who were so pleased with its toothsome qualities that they took specimens home with them. The name turkey has led to the impression that it is native of the Southern European country.

The Horse.

NOTES.

With limited space in which to prepare the site, ground only being broken in June, and then heavily handicapped by unfavorable weather conditions, the grand success of the initial effort of the Virginia State Fair Association, October 9-13, came as little less than a marvel to those even in touch with details, while to the masses it must have been a revelation, because not only were the exhibits of real class, but attendance was fine from the opening day, Tuesday, until the curtain rung down on the following Saturday evening. On Thursday, that being set apart as "big day" by most Fair Associations throughout the country, a great, surging, seething mass of humanity, variously estimated from 40,000 to 50,000—a record breaker for Richmond—gathered on the grounds, and when the first race was called at 1 P. M., not only was a packed grand stand in evidence, but thousands looked on far down either side. It is worthy of remark that fair weather prevailed throughout the week, seemingly, as an offset to the previous siege of rain, certainly fortunate for both the State Fair Association and the Richmond Horse Show Association, the former being in progress during the day, while in the evening the brilliant exhibition of the latter was on.

Racing—both in harness horse events and those for runners—was a pronounced feature of the State Fair, while the show horse department also proved a pleasing surprise to many, and it is needless to state that another year will witness great improvement in both.

Colonel Robert Hough, of Baltimore, made the awards. Acca Stock Farm, well known for years as a local establishment, made the largest exhibit of standard-bred horses, and practically made a clean sweep in every class shown, taking blue ribbons, with Berro, Kahala, Waxy Gaunt, Princess Kingan and Akar, while an added glory came in the victory of Nellie McZeus, who made her first essay as a race mare and won the 2.35 trot, and entering the list of standard speed with a record of 2.26 1-4. Higginbotham Brothers, of Fairfax Court House, Va., made a fine exhibit of saddle-bred stock, winning in the stallion class with Madison Dare. Longlane, son of Longstreet, owned by Col. G. Percy Hawes, of this city, was first in the class for thoroughbred stallions. Grandee, the handsome chestnut stallion, owned by Carl Nolting, caught Col. Hough's fancy and won first prize offered for German coachers in one class,

while Pollas, the property of the Roanoke German Coach Horse Association, Roanoke, Va., captured the blue ribbon in another.

Colonel W. H. Chapman, of Gordonsville, Va., owner of Wealth, 2.10, was awarded a blue ribbon in the class for standard-bred stallions, and really the brown son of Gambetta Wilkes never looked better.

The season of 1906 has been a prosperous one at Floyd Stock Farm, the breeding and training establishment of Floyd Brothers, Bridgetown, Va., as not only have a number of sales of young trotters and pacers been made, but some three hundred mares have been bred to the four stallions in use at the farm. It is safe to say that never a trotting sire in Virginia has made such rapid strides to popularity as Sidney Prince, whose roll of honor in the list of standard speed has been increased by some six or eight additions, giving him a total representation of 15 or more, while further it is a fact that his daughter, Princine, won five straight races and reduced her record from 2:26 1-4 to 2:14 1-4, after which she was retired for the season, but not before trotting a half-in 1:01 and a quarter-in 29 seconds. The daughter of Sidney Prince is in the Crabtree stable, of Boston, which includes the great trotter Nutboy, 2:07 1-4, and others of note, among the stars being Prince, who is expected to make a great showing down the Grand Circuit in 1907.

Herring & Meetze, of Staunton, whose stable of hunters, jumpers and harness horses was exhibited down the line of Virginia open horse shows and carried off a number of prizes, have made a number of sales recently and at satisfactory prices, the transfers including the heavy harness pair, Going Some and So Am I, to George P. Watkins, of Lynchburg, Va., and the handsome chestnut mare, Amazement, the latter having been sold for shipment to Boston. Amazement was shown at some six or eight places and figured as a blue ribbon winner, while in addition the chestnut mare came in for quite a share of admiration on account of her nice way of going, looks and finish.

J. T. Temple has sold to M. S. Valentine, Jr., Rock Castle, Va., the bay filly, Inkle Jade, 2, by Scorpion, dam Truth, by Jim Gore. This filly already has nice size, along with good looks, and promises to develop into a large, handsome mare. She will be schooled over the jump by her new owner, and later placed in the stud.

BROAD ROCK.

Miscellaneous.

THE VIRGINIA STATE FAIR.

The first exhibit of the Fair was held in the city of Richmond from the 9th to the 13th of October. Favored by fine weather, the efforts of the Hon. Henry C. Stuart, the president, and his colleagues, on the Board of Directors, scored a wonderful success. When Mr. Stuart was elected to the presidency and consented to accept the position, we made the prediction that the Fair would be a success if success could by any possibility be realized. We knew that his fine business capacity, complete realization of what a State Fair ought to be, and his recognized position as one of the leading live stock breeders and farmers of the State, would make a success of the undertaking if such a thing were possible. From the time when the capital required had been subscribed, and the Fair ground site secured, Mr. Stuart and his colleagues applied themselves diligently to the work of making a Fair of which the people of the State could be proud, and which would become a fixed feature in our annual programme of social events. Mr. Stuart kept steadily in view the main point which he made when accepting the position of president—that the Fair should be a farmers' and stock breeders' fair, and should, before all else, be the means of showing to the people of this and the adjoining States what were the agricultural possibilities of the State. As a result of this, we had the finest exhibit of live stock of all kinds ever seen in the South and a creditable showing of the products of the soil. Whilst we regretted to see the absence from the Fair of a number of our leading breeders, we realize that this did not in many cases mean indifference on their part to the importance of supporting the Fair, but was the result of their being located within the quarantined section of the State, from which stock could only have been sent with special permits from the Federal authorities and the further difficulty that the presence of stock from these sections would have been resented by exhibitors from other States as subjecting their stock to risk of tick infection, which they would not have dared to risk. Even with the absence of these men more stock was exhibited than could be housed within the buildings erected, which were larger than were ever before provided at any Fair in the South, and at the last moment temporary structures had to be put up and tents hired in which to exhibit the entries. That a

State Fair was regarded as meeting a recognized want was fully evidenced by the attendance of the public on each day that it was open. In the aggregate, more than 75,000 people visited the grounds, and of these a very large number were farmers from every county in the State. Outside of the live stock the exhibits made by the Virginia Experiment Station and the Agricultural and Mechanical College were most interesting to farmers. These were made up of agricultural products showing the different types of corn, wheat, oats and other products of the experimental plots of the Station, and a working dairy, showing butter and cheese making in operation. Professor Saunders of the Dairy Department of the Agricultural College was in charge of this exhibit, and was kept constantly engaged answering inquiries and teaching the farmers and their wives how to make good butter and cheese. A fine wool exhibit was made by Mr. Wallerstein of this city, and there was also a very creditable display of tobacco of different types. The racing and other amusement features of the Fair constantly attracted large crowds and passed off without any hitch or accident.

In our live stock columns will be found a description of the stock shown and the premiums awarded. To Professor Soule, who took charge of the Live Stock Department, great praise is due for the excellence of the arrangements made for handling the stock and the judging of the same. He had the assistance of Mr. Brauer and Mr. Miller and several of the students from the Agricultural College, and they contributed largely to the success of the show and to the satisfaction of the exhibitors and the public.

APPOINTMENT OF COUNTY VICE-PRESIDENTS FOR VIRGINIA STATE FARMERS' INSTITUTE.

The Executive Committee of the State Farmers' Institute met in Radford on Oct. 20th and nominated the following gentlemen as vice-presidents for the counties set opposite their names. The Executive Committee is composed of Ex-Governor J. Hoge Tyler, East Radford, President; Prof. Andrew M. Soule, Dean and Director, Virginia Experiment Station, Blacksburg, Secretary; Mr. J. M. Williams, Industrial Department of Norfolk & Western Railway, Roanoke, Assistant Secretary. Vice-Presidents were selected for only those counties where the Institute has a bona fide membership:

County.	Name.	Postoffice.
Albemarle,	Dr. S. A. Robinson,	Covesville.
Alleghany,	A. J. Chapman,	Blue Spring Run, R. D. 1.
Amelia,	C. N. Stacy,	Amelia.
Amherst,	W. P. Massie,	Sandidges, R. D. 2.
Appomattox,	Maj. Joel Flood,	West Appomattox R. D. 3.
Augusta,	J. R. Kemper,	Staunton.
Bedford,	R. A. Burks,	Bedford City.
Bland,	Capt. A. J. Grayson,	Bland.
Botetourt,	J. Lucien Moomaw,	Cloverdale.
Buckingham,	A. J. Bondurant,	Hubbard.
Campbell,	S. C. Goggin,	Rustburg.
Caroline,	Dr. C. U. Gravatt,	Port Royal.
Carroll,	W. M. Housman,	Ethelfelt.
Charlotte,	J. D. Shepperdson,	Charlotte.
Chesterfield,	R. A. Clarke,	Bon Air.
Culpeper,	Joseph Wihner,	Rapidan.
Dinwiddie,	Charles Sedivy,	Marmora.
Elizabeth City,	E. A. Bishop,	Hampton.
Floyd,	J. H. Prilliman,	Simpsons R. D. 1.
Franklin,	Dr. J. R. Guerrant,	Callaway.
Frederick,	Carroll O' Clevinger,	Stephenson.
Giles,	Rev. B. Hobson,	Pearisburg.
Grayson,	E. L. Williams,	Galax.
Halifax,	J. H. Boelte,	News Ferry R. D. 1.
Hanover,	H. B. Smith, Jr.,	Hanover.
Henrica,	A. R. Scott,	Richmond R. D. 7.
Henry,	D. F. Dunlop,	Boxwood.
Loudon,	John W. Gregg,	Purcellville.
Louisa,	Carl H. Nolting,	Trevilians, R. D. 2.
Madison,	W. W. Briggs,	Locust Dale.
Montgomery,	Maj. John T. Cowan,	Cowan's Mills.
Nansemond,	J. O. Cutchin,	Elwood.
Nelson,	J. C. Clarkson,	Freshwater.
Norfolk,	F. Nash Bolosoly,	Portsmouth.
Nottoway,	T. O. Sandy,	Burkeville.
Patrick,	S. M. Lybrook,	Stuart.
Pittsylvania,	R. E. L. Farmer,	Sutherland R. D. 1.
Powhatan,	W. A. Randabaugh,	Powhatan.
Prince Edward,	W. D. M. Stokes,	Farmville R. D. 3.
Prince George,	J. F. Devorack,	Prince George.
Prince William,	M. E. Coffman,	Nokesville, R. D. 1.
Pulaski,	J. R. K. Bell,	Pulaski.
Rappahannock,	F. D. Wood,	Washington.
Roanoke,	J. Coles Terry,	Bent Mountain.
Rockbridge,	John D. Walker,	Buffalo Forge.
Rockingham,	John H. Hoover,	Timberville.

Russell, Henry C. Stuart, Elk Garden.
 Scott, Charles T. Godsey, Snowflake.
 Smyth, George W. Tyler, Seven Mile Ford.
 Southampton, J. T. Barham, Capron.
 Surrey, T. O. Gwathmey, Anchor.
 Tazewell, Major A. J. Tynes, Tazewell.
 Warwick, Thomas N. Benson, Newport News, Box 8.

Washington, A. J. Huff, Fleet.

Wythe, Henry J. Crowgey, Wytheville.

It is gratifying to note that fifty-five counties are thus represented, and that the Institute's membership of 583 is widely distributed over the State of Virginia. The gentlemen appointed will no doubt do much to extend the influence of the Institute and make it a truly representative State organization. The active co-operation of all the officers and members is earnestly desired by the Executive Committee on whose shoulders has been placed the burden of carrying on the business of the organization. This is an honor highly esteemed by the Committee and one which they hope to perform faithfully and to the satisfaction of the membership, but the greatest success and the most beneficial results from the work of the organization can only be expected where every member puts his shoulder to the wheel and does his share. The crying needs of agriculture and the necessity of using more scientific methods in farming are everywhere apparent, and hence the work of the organization is certainly to be commended and deserves the earnest support and sympathy of every progressive farmer in the State.

The proceedings of the last annual meeting are now in the hands of the printers, and, when completed, a book of about 240 pages of scientific, but with all practical, data will be available for distribution to the members. This book will cost several hundred dollars to publish and will be one of the best and most representative pieces of agricultural literature ever distributed in the State. Any farmer who is not a member of the organization can secure a copy of this report on the payment of \$1.00, which should be sent to the Secretary at Blacksburg at the earliest possible date, so that a sufficient number can be printed to meet all demands. A receipt will be forwarded promptly, but it will be several weeks before the book is ready for distribution. The report for this year contains 100 pages more than last year, and the men contributing the papers, as all know who attended the last meeting, are among the most successful practical farmers in the State. There are

also many papers contributed by agricultural experts of national reputation, and by the officers of the Virginia Experiment Station located at Blacksburg.

Blacksburg, Va.

ANDREW M. SOULE,
Secretary.

A MESSAGE TO AMERICAN FARMERS.

(Continued from last issue.)

Accepting provisionally that ratio as a point of departure, though the actual ratio of area to population gives a figure considerably higher even than this, the 414,498,487 acres of improved farm lands in the United States on the date of the last official report, an area materially enlarged by the present time, would support in comfort 317,350,405 people, enabling them at the same time to raise considerable food for export and to engage in necessary manufacturing employments.

Applying the same ratio to the entire acreage of farm lands within the United States, both improved and unimproved, which was at the same date 838,591,774 acres the population indicated as able to live with comfort and prosperity on the actually existing agricultural area of this country, under an intelligent system and a fairly competent but by no means highly scientific method of culture, rises to 642,045,823.

The conclusion is that, if not another acre were to be redeemed from the wilderness, if the soil were treated kindly and intelligently, and if industry were distributed duly and popular attention were concentrated upon the best possible utilization of the one unfailing national resource, there would be produced all necessary food for the wants of, in round numbers, 650,000,000 people.

But this means such study and labor to raise production to its highest terms as have entered scarcely at all as yet into the American comprehension.

* * * * *

I have not drawn upon fancy for a single detail of this picture. This growing increase of population, its rise to over 200,000,000 before 1950, the approaching exhaustion of much of our mineral wealth, the vanishing of our public domain, the deterioration of our soil, the terrible need which these must bring, the strain on institutions and the stress of industrial perplexity or decline are as certain as the passage of the years.

I have given you the facts, drawn from authentic sources, and in every case under rather than over stated. Let them be examined, criticised, compared with official records. For this is not a controversy about theories, but a plain statement of natural facts in the light of nature's laws.

THE FARM WATER SUPPLY.

Editor Southern Planter:

The health of the family is too often given little or no attention. If one is seriously ill, the doctor is requested to make the family a visit. If the illness is not serious, the person allows nature's processes to ultimately effect a cure. In the meantime, no one sets a value on the time lost by the sick ones. Illness in the family is not only expensive for medical attendance and medicine, but the lost time of the patient is in most cases of greater value.

If we should regard the body as a machine and sickness as indicating that the machine was injured in some manner by carelessness on part of some one, then sickness will not, be looked upon as the result of luck, but attention will be given to its prevention.

One of the essential conditions for good health of the family is a pure water supply. The supply may come from a well, spring or stream. It matters little as to the source of the water supply, provided it is pure. Whatever the source may be, it will require constant attention that it be kept in a pure condition. Too often a serious mistake is made when it is thought that because a water supply may have been pure at some time in the past history of the farm that it will be pure for all the future. The water supply may be the cause of sickness in the family, yet not suspected, because the water appears to every one to be pure. One often hears the expression that a water supply is an excellent one simply because it may not have an unpleasant taste or smell. The spring may be located near the barn yard and be a very impure water, yet have the appearance of a good water, as far as the taste and smell may be concerned.

It is a very common experience for families to have periods of sickness and suspect every cause that may be possible except the old well that has been used for years. This is never suspected because of its long service. In such cases, age does not guarantee purity of water. After a number of years of sickness, the old well may be cleaned then the material that is generally removed will explain many things to those interested. If the doctor had included as a part of his visit to the family an inspection and examination of the water in the old well, the information thus obtained would have been of great benefit. The doctor, however, rarely considers this as a part of his work although it would be much better for all concerned if such an examination should be regarded in many cases as a part of the work that properly belongs to the physician.

J. B. WEEMS.

THE Southern Planter

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THE SOUTHERN PLANTER PUBLISHING CO'Y,

RICHMOND, VA.

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J. F. JACKSON,

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B. MORGAN SHEPHERD,
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B. W. RHOADS,

Western Representative

1714 Tribune Bldg., Chicago, Ill.

MANCHESTER OFFICE:

W. J. CARTER,

1102 Hull St.

ADVERTISING RATES

will be furnished on application.

THE SOUTHERN PLANTER is mailed to subscribers in the United States and Canada at \$6. per annum; all foreign countries and the city of Richmond, Va.

REMITTANCES should be made direct to this office, either by Registered Letter or Money Order, which will be at our risk. When made otherwise we cannot be responsible.

SUBSCRIBERS failing to receive their paper promptly and regularly, will confer a favor by reporting the fact at once.

WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. Criticisms of Articles. Suggestions How to Improve THE SOUTHERN PLANTER, Descriptions of New Grains, Roots, or Vegetables not generally known, Particulars of Experiments tried, or Improved Methods of Cultivation are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.

NO ANONYMOUS communications or caricatures will receive attention.

Address THE SOUTHERN PLANTER,
RICHMOND, VA.

ENTERED AT THE POST-OFFICE AT RICHMOND, VA., AS SECOND-CLASS MATTER.

PUBLISHER'S NOTES.

To Advertisers.

Be sure to send in your copy or instructions on or before the 25th of the month for the following month's issue. This is imperative.

A NEAT BINDER.

We have recently received a new supply of Binders for the Southern Planter. This is a very neat

and durable device for saving the entire volume intact. It will prevent soiling and turning up of the corners. Get one now and fasten your copies in it as they are issued and at the end of the year, you will have a valuable reference volume. Price, 30 cents, post-paid.

CASH PRIZE OFFER.

We beg to call particular attention to the subscription prize offer on the first page of this issue. This is a clear cut proposition without any strings tied to it and only a few simple rules governing it which will be sent promptly to all who will enter the contest. This is a most liberal offer and a good chance for the boys to earn a good cash prize together with a little pocket money in the shape of commissions on all subscriptions secured. Parents should call their sons' attention to the offer, as any one has a chance to win the first prize. Just think, twenty or twenty-five subscriptions may win it! Nobody has sent in this number yet. A little hustle should secure more than that any day. Write us now.

NUFF SED.

Two men, each driving a light team, were approaching each other from opposite directions when they suddenly and somewhat severely collided. One of the men, who was cross-eyed, exclaimed angrily: "Why don't you look where you're going?"

The other immediately retorted: "And why don't you go where you're looking?"—October Lippincott's.

Anne Arundel Co., Md., Aug. 30, 1906.

THE SOUTHERN PLANTER is a very interesting and instructive magazine, and I have used my influence in trying to further its circulation, and only wish it was in the home of every farmer. Miss M. M. HOLLADAY.

WOOD'S SEEDS.

Cabbage and Lettuce Plants

for fall setting. Ready now.

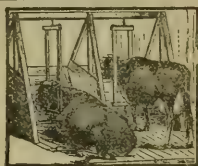
November

is the time to plant

**Strawberry Plants,
Asparagus Roots,
Rhubarb Roots,
Horse Radish, etc.**

Wood's Fall Catalogue tells how and when to plant all seasonal Vegetable, Flower and Farm Seeds. It's free for the asking.

**T. W. W. SONS,
SEEDSMEN,
RICHMOND, - VIRGINIA.**



WARRINER chain hanging stanchions save cost in feed in one winter, says H. A. Meyer, Syracuse, N. Y. I think them perfect, writes I. B. Calvin, Kewanee, Ind., vice-president state dairy association. Send for booklet containing further information to WALLACE B. CRUMB, South St., Forestville, Ct.

Black Hawk Corn Sheller

Clamps to Barrel, Box or Tub.
Capacity 8 to 14 bushels per hour. Shells easily, shells rapidly, shells perfectly clean.

Extended Hopper and Separator prevents any scattering of corn. Largely of Malleable Iron. Bearings Chilled. Will last a lifetime. So well made that all repairs are FREE.

World's Fair Medal at Chicago 1893-St. Louis 1904. Beware of imitations. Insist on having the Original and Best. Invented and made only by

A. H. Patch, Clarksville, Tenn. Manufacturer of Hand Corn Shellers and Hand Grain Mills exclusively.

Illustration of the Black Hawk Corn Sheller machine, showing the hopper, clamps, and separator.

BANK OF RICHMOND,

Main and Ninth Streets

CAPITAL AND PROFITS EARNED, \$1,200,000.

Special attention paid to out-of-town accounts. Correspondence invited.

Three per cent. interest allowed in Savings Department.

Compounded semi-annually.

TRY THIS MILL

10 Days Free.

I will send any responsible farmer one of

DITTO'S

Latest Double Cut,
Triple-Geared
Ball-Bearing

Feed Grinders

On Ten Days Trial—No Money In Advance.

If it does not grind at least 20% more ear-corn or other grain than any other two horse sweep mill made, send it back at my expense. Don't miss this offer. Ball-bearing throughout. Only 10 ft. sweep. Light draft. Grinding rings never touch each other—they last for years. Both grinders reverse, self cleaning. Ask for new Catalogue.

G. M. Ditto, Box 48 Joliet, Ill.



THIS MILL ON TRIAL 20 DAYS FREE

We'd like to tell you how we send our "Corn Belt" Feed Mills on 20 days trial free, and why it's the mill for you to

have. This is the time mill you'll use better the longer you use it. 20 days gives you time to see how it works—how it's made. "Corn Belt" Mills grind all kinds of grains evenly and rapidly. Write today for free catalogue, full line of sweep and power mills. Spartan Mfg. Co., 182 Chambers St., Galveston, Ill.



Try It. Freight Paid.

40 years the leader, better than ever and price lower.



Quaker City

mills grind ear corn and all grains, separate or mixed. Don't be misled. Quaker Cities make good everywhere. Investigate. Catalogue free.

The A. W. Straub Co., 37-39 Canal St., Chicago, Ill.

GRIND FINE OR COARSE

all feeds, ear corn, with or without husks, all grains, with fine



KELLY DUPLEX Grinding Mills

Simplest, exact running most durable mill made. Four sizes. Especially adapted for grinding grains. Use 20% less power than any others. No sliding cutters, force feed, no clogging.

The O. S. KELLY CO., 115 N. Line St., Springfield, Ohio

Better Than Ever

and fully guaranteed is the old reliable feed mill. You know where the

STAR FEED GRINDER

has been made for thirty six years. Never any trouble to get results. We're always here. Simple Sweeps, Gear Saws, Bolt Powers. Ask for book with all details.

The Star Mfg. Co., 66 Depot St., New Lexington, O.



WITH THE ADVERTISERS.

Mr. W. L. Woodson is offering a most desirable fruit farm in Albemarle county for sale. Look up his advertisement.

Mr. R. L. Leach, Front Royal, Va., is advertising Shorthorn cows, heifers and bulls; also, a splendid 2-year-old colt bred by Supremacy.

Berkshire swine of the famous Longfellow, Premier and Duchess families are offered in this issue by Mr. P. H. Gold, Winchester, Va. Look up his advertisement.

The Acme harrow is advertised as usual this season by Duane H. Nash.

Mr. W. B. Payne, Crofton, Va., is offering some bargains in Poland-China swine.

The Stevens Arms and Tool Company is advertising its well-known rifle on another page.

Northern Virginia real estate is advertised by Mr. J. F. Jerman, Fairfax, Va. Look up his advertisement.

The Western Newspaper Association has an attractive announcement on another page, to which we invite attention.

Morrill & Morley are offering their Eclipse spray pump as usual this season.

A splendid lot of Aberdeen Angus cattle can be had of Mr. C. R. McIver. See his half-page advertisement.

Mr. Clarence Cosby is in the market for 50,000 hides, and will also buy your old scrap metal, etc.

The Breeders' Gazette is seeking agents through an attractive offer on another page.

The Griffith & Turner Company, seedsmen and implement dealers, would like to send you their catalogue. See advertisement.

The Atkinson & Ballard Company are offering a most attractive farm in Northern Virginia at a very low price.

The Spartan Manufacturing Company have a couple of advertisements in this issue to which attention is invited.

The Sharples Separator Company is offering its well-known Tubular Cream Separator in an attractive card on another page.

Note the change in the advertisement of the Folding Sawing Machine Company, of Chicago.

The International Stock Food Company have a large advertisement elsewhere in this issue and you are requested to look it up.

THE BACHELOR'S SOLILOQUY.

To wed, or not to wed;
That is the question.
Whether 'tis better
To remain single,
And disappoint a few women—
For a time;
Or marry,
And disappoint one woman—
For life?

—Walter Pulitzer in October Lippincott's.

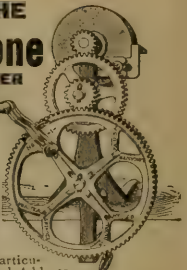
BEATS THE Grindstone TEN TIMES OVER

No pressure, no drawing temper, if you use the

Practical Aluminum Grinder

with wheel revolving 3,000 times a minute. Far superior to emery or stone. Grinds any tool, knife to sickle. Different sizes. Foot power attachment.

Write for circular of particulars. Good agents wanted. Address, ROYAL MFG. CO., 35 E. Walnut St., Lancaster, Pa.



THE IMPROVED SCREW STUMP PULLER. Write for Prices.



Chamberlin M'g Co., Olean, N. Y., U. S. A

HERCULES Stump Puller



Clears an acre of heavy timber land each day. Clears all stumps to a circle of 150 feet without moving or changing machine. Strongest, most rapid working and best made.

HERCULES MFG. CO., 413 17th St., Centerville, Iowa.

MONARCH STUMP PULLER



Will pull stumps 7 feet in diameter. Guaranteed for 12 months and a strain of 250,000 pounds. Catalogue and discounts, address MONARCH GRUBBER CO. Lone Tree, Iowa.

THE GENUINE SMITH STUMP PULLERS

Send name of party canvassing for petitions for new rural route. BE FIRST—get the best box made FREE. KENTUCKY STAMPING CO., Louisville, Ky.

FREE Rural Box MAIL BOX

LAMPS RETURN TO FAVOR TO READ AND SEW BY.

Considered Less Injurious to Eyes Than Other Artificial Lighting.

"Lamps for reading and sewing are still preferred by those who have much need of artificial light, though electric and gas fixtures have been made practical for such usages. The mellow light of a student or reading lamp and the strong burner in one of the 'sewing' or table variety are much easier on the eyes when burned during the long fall and winter evenings than white light from gas or the glare from an incandescent globe that is not yellow or soft enough to be agreeable. Kerosene lamps of thirty or sixty-candle power are found to be more serviceable than any other kind of light for night work and better for the eyes and, though it is a trouble to fill them with oil every day or two, as well as to keep the wicks in condition and the chimneys and globes clean, they are used in almost every household where the smartest gas and electric fixtures are installed.

"Student lamps for reading have either one or two burners, according to the purpose for which they are needed, and the variety used on a table for needlework has one large, round burner."

Macbeth lamp chimneys require replacing less frequently than electric bulbs or gas mantles. They don't break from heat, they fit, and they are clear as crystal.—From the New York Evening Telegram, September 21, 1906.

GET RID OF THE STUMPS.

Not all of our readers are troubled with stumpy fields, but many are. There is, with many farmers, a disposition to consider the stumps a necessary evil and to let them stand until they rot away. It is a mistaken policy.

For a small sum an excellent stump-pulling device, manufactured by the Milne Manufacturing Company, Monmouth, Ill., can be procured, and it is astonishing how fast the stumps do disappear.

It is really not a hard matter to remove stumps if you are equipped for it. The Milne people are doing wonders for the old stump fields and newly-cleared regions of the country. If more people with stumps standing all around over their farms, wasting the best part of the land, knew what they could do with the Milne stump pullers there would be more of them in use. If you have stumps on your farm we make the suggestion that you look for a little Milne ad in this paper and write and find out about what these stump pullers will do for you.

Rockbridge Co., Va., Aug. 28, 1906.
I have enjoyed THE SOUTHERN PLANTER and have been greatly benefited by it. K. L. MORRISON.

I am familiar with the merits of Ridpath's History of the World and commend it to the scholar as well as to the plain people generally.

Wm. McKinlay

200,000 Americans

I esteem Ridpath's History of the World of very great value and hope it will find a place generally in the libraries of our schools, as well as upon the shelves of readers in every walk of life.

Jefferson Davis

HAVE PLACED IN THEIR HOMES THE WORLD-FAMED PUBLICATION

Ridpath's History of the World

This means that practically as many Americans have bought Ridpath as have bought the great Encyclopedia Britannica and the Century Dictionary combined. Can you imagine any greater testimonial for any book?

Dr. Ridpath's Immortal Work commands the admiration of the English-speaking world. It is endorsed by the scholarship of the world, and by the great American people as the only history of the world worth having.

THE FAILURE OF THE PUBLISHERS

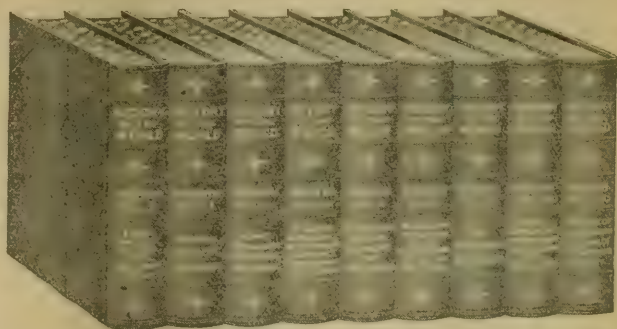
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We will name our prices only in direct letters to those sending us the coupon below. Tear off the Coupon, write name and address plainly and mail to us now before you forget it.

Dr. Ridpath is dead, his work is done, but his family derive an income from his History, and to print our price broadcast, for the sake of more quickly selling these few sets, would cause great injury to future sales.



RIDPATH'S enviable position as an historian is due to his wonderfully beautiful style, a style no other historian has ever equaled. He pictures the great historical events as though they were happening before your eyes; he carries you with him to see the battles of old, to meet kings and queens and warriors; to sit in the Roman senate; to march against Saladin and his dark-skinned followers; to sail the southern seas with Drake; to circumnavigate the globe with Magellan; to watch that thin line of Greek spearman work havoc with the Persian hordes on the field of Marathon; to know Napoleon as you know Roosevelt. He commands the interest of living men and women, and about them he weaves the rise and fall of empires in such a fascinating style that history becomes as absorbingly interesting as the greatest work of fiction.

RIDPATH'S History is strongly endorsed by Presidents Harrison, Cleveland and McKinley, Jefferson Davis, Lew Wallace, John L. Stoddard, Bishop Vincent, Dr. Cuyler, Rabbi Hirsch, Presidents of Ann Harbor, Amherst, Brown, Dartmouth, Tufts, Trinity, Bates, Colby, Smith, Vassar, Yale, and other Colleges, and by the Great American People, 200,000 of whom own and love it.

RIDPATH is generally conceded the Greatest History ever written. It is the only general history recognized as an authority.

\$1

Bring the Complete Set Balance Small Sums Monthly.

It is so beautifully written your children will learn to love it. You should know history in these history-making days. This is your chance to buy for less than ever before. You may pay in small sums monthly, if you wish.

SEND COUPON TO-DAY WE WILL MAIL SAMPLE PAGES FREE

FREE COUPON
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Chicago, Ill.
Please mail, without cost to me, sample pages of Ridpath's History containing his famous "Race Chart" in colors, diagram of Panama Canal, and write me full particulars of your special offer to THE SOUTHERN PLANTER readers.
Name.....
Address.....

Bargains in 2nd Hand Steam Engines and Boilers in good order.

- 1 4 H. P. Geiser Engine and Boiler,
ON WHEELS.
1 6 H. P. Geiser Engine and Boiler,
ON WHEELS, Almost New.
1 8 H. P. Geiser Engine and Boiler,
ON WHEELS.
1 25 H. P. Detached Engine.
1 30 H. P. Boiler.

ALSO

- 1 12 H. P. International Stationary
Gasoline Engine.

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INFORMATION

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Richmond, Va.



To every reader of the Southern Planter we will send a sample 33 1/2 H. P. gasoline engine at one half price. This offer is only good for a limited time.

C. H. A. DISSINGER & BRO., Wrightsville Pa.



Pringwood U., 60-56 Fisher St. S.

\$85

Will buy our 2 H. P. & Cycle Engine sizes in proportion. Buy direct and save dealer's profit. Vertical, Horizontal and Portable Gasoline Engines. Pumping outfits a specialty. Write for free circulars.

BAURTH BROS.

ENGINES FOR SALE.

10 Horse traction \$250, 12 Horse traction \$300, 16 Horse traction \$400, double sawmill \$125, 10 Horse portable engine on wheels \$150, 5 Horse vertical boiler and engine \$100, 5 Horse vertical boiler and engine new, \$125, No. 3 Bowsher corn mill \$25, new boilers tanks and plate work of every description made to order, second-hand boilers and engines carried in stock from 5 to 100 horse. D. L. CASEY MACHINE CO., Springfield Ohio.

Always mention the Southern Planter when writing advertisers.

QUALITY IS THE TRUE TEST OF CHEAPNESS.

The following letter recently received by Dr. Joseph Haas, the well-known manufacturer of Hog Remedy, Indianapolis, Ind., is explanatory and needs no comments:

Dr. Joseph Haas, Indianapolis, Ind.:
Dear Sir,—We have handled large numbers of hogs for many years, but have always taken the stand that patent remedies or hog remedies of any kind were worthless. However, last winter we had about 350 hogs on full feed during the months of December, January, February and March, but they did not thrive as they should have and upon making investigation we were induced to try your Hog Remedy, whereupon we began feeding it, and we can honestly say that it is the greatest appetizer we have ever known; besides, it destroys all worms and keeps hogs in the most healthy and thrifty condition possible, and as a pork producer, it is without an equal, besides giving assurance against disease. The 350 hogs which we commenced feeding the remedy gained from the very start and until they were marketed, and the gain in flesh was marvelous, and we could scarcely believe it when they were weighed up. We handle about a thousand hogs on the farm at all times, and do not hesitate to say that hereafter we will always feed the remedy as a preventive and pork producer.

Yours truly,

A. W. BEAMER,
Manager College Hill Stock Farm.
Lamor, Barton county, Mo.

SIXTY WEEKS FOR \$1.75.

Don't put off until to-morrow the matter of subscribing for The Youth's Companion. The publishers offer to send to every new subscriber for 1907 who at once remits the subscription price, \$1.75, all the issues for the remaining weeks of 1906 free.

These issues will contain nearly fifty complete stories, besides the opening chapters of Hamlin Garland's serial, "The Long Trail"—all in addition to the fifty-two issues of 1907.

Full illustrated announcement of The Companion for 1907 will be sent to any address free with sample copies of the paper.

New subscribers will receive a gift of The Companion's four-leaf hanging calendar for 1907, lithographed in twelve colors and gold.

Subscribers who get new subscriptions will receive \$16,290 in cash and many other special awards. Send for information.

THE YOUTH'S COMPANION,
144 Berkeley Street, Boston, Mass.

King & Queen County, Va., May 19, 06.
I greatly enjoy the visits of the Southern Planter and have been much benefitted by its timely suggestions.

REV. F. B. BEALE.

Want Running Water?

You can have a constant stream at house or other buildings from spring or stream on a lower level by installing a

RIFE HYDRAULIC RAM.

Most satisfactory water service known. Always going, no attention, no running expense. Raises water 30 feet for every foot of fall. 18 inches fall enough to operate it.

Over 5,000 now in use.

Sold on 30 Days Free Trial.

Ask for booklet giving particulars.



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NEW YORK.



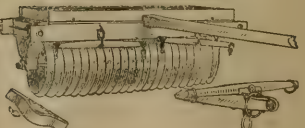
HEEBNER'S FEED CUTTERS.

Feed all your fodder by using Heebner's cutters with shredder attached the whole of the nutritious stock is cut, crushed and shredded, and rendered edible. No waste. Animals eat it greedily and thrive. Shredder attached cuts 1/2 in. The model runs new cutter. Also make Feed Power Press, Corn, Little Feed and Fodder Trucks, Feed Scales, Feed Scales, etc. Catalogue free. HEEBNER & SONS, 25 Broad St., Landale, Pa.

SAVE MONEY 20 Days Free Trial

Grind your own feed—save money and make more on your grain. This "Corn Self" Mill is just what you want—it's a rapid grinder—fully warranted—durable and simple. Gradual reduction by cutting and shearing reduces cob evenly with corn. Free catalog tells why you tell about mills at 20 H. P., 4 H. combined for power purposes. Spartan Mfg. Co., 181 Chambers St., Galveston, Ill. Ask about our Free Trial Plan. Write Today

The Cambridge. Corrugated Land Roller and Pulverizer.



THE BEST IN THE WORLD.

Used by the State Test Farm, Va., Ag'l College Sweet Briar Institute, Miller M. L. School, and some of the best farmers in the State. Address, R. F. HARRIS & CO., Charlottesville, Va.

DEHORNING ISN'T CRUEL

It may be with a saw, but not so when the

KEYSTONE DEHORNER

is used. It cuts from four sides at once; makes a sliding, sharp, clean cut. Any stock-raiser can do it easily. No cauterizing or splintering of horns or tearing of flesh. Done in 2 minutes. Send for free booklet. M. T. Phillips, Box 45, Pomeroy, Pa.



Farmer's Sons WANTED

With knowledge of farm stock and fair education to work in an office. \$60 a month with advancement, steady employment, must be honest and reliable. Branch offices of the association are being established in each state. Apply at once, giving full particulars. The VETERINARY SCIENCE ASSOCIATION, Dept. 17, London, Canada.

SPOTLESS HARNESS \$5.69



WE OFFER THIS EXTRAORDINARY BARGAIN because we want to introduce our HARNESS DEPARTMENT to you and start you to buying your Leather Goods direct from the Factory where you can get the best at a low cost. We know that we have the BEST AND CHEAPEST Harness in the market and that you will save money by placing your orders with us.

WE GUARANTEE

that only HIGH-GRADE LEATHER is used in our goods, and that the WORKMANSHIP and FINISH are unsurpassed by any other Harness Makers in the country. Our SPOTLESS HARNESS is noted for its beautiful FINISH as well as for its GREAT STRENGTH and DURABILITY.

SPECIFICATIONS

SADDLE—full padded, 5½ inch; SHAFT TUGS—½ inch, doubled and stitched, 3½ in. point; GIRTHS—two, one ¾ inch, one ¾ inch; TURN-BACK—¾ inch, creased; BREACHING—1½ inch, folded, ¾ inch, ¾ inch layer, Bar Buckles; Loop Buckle, ¾ inch, ¾ inch; Neck Strap, 1½ inch; Traces; ROUND DOCK, HIP STRAP—¾ x 4½ inches flat, creased.

BRIDLE—¾ x ¾ inch Flat Winker, Braces, Bar Buckles; REINS—¾ inch Leather, Snaps on Ends; TRIMMINGS, X.C.

PLEASE WRITE US IF YOU WISH TO KNOW ANYTHING FURTHER ABOUT THIS HARNES.

SPOTLESS CO., INC.,

Box 364 • RICHMOND, VA.

MEADOW VIEW BERKSHIRES.

In the swine exhibit at the recent State Fair at Richmond, we don't believe any breeder fared as well as the Meadow View Farms, Woodbine, Pa. These farms literally "swept the deck" by winning two champions, twelve firsts and three seconds. Mr. G. A. Shortrede, in charge, deserves congratulations, which were liberally showered on him. The exhibit was much admired and there will be a good demand for Meadow View Berkshires, which will be advertised regularly in The Southern Planter hereafter.

HISTORY OF THE HORSE IN AMERICA.

The Horseman and Spirit of the Times has just published its seventy-fifth anniversary number, containing a complete and profusely illustrated history of the horse in America, written by Hamilton Busbey, and for the first time in the history of breeding and development the presidents of the powerful governing associations have joined in a symposium of facts.

P. P. Johnston, president of the National Trotting Association; W. P. Ijams, president of the American Trotting Association; William Russell Allen, president of the American Trotting Register Association; H. K. Devereux, president of the Amateur League of Driving Clubs, and H. L. Herbert, chairman of the Polo Associations of America, contribute papers giving concise histories of their respective organizations, and in doing this they furnish evidence of their appreciation of the great work prepared and published by The Horseman and Spirit of the Times.

The history is comprehensive and accurate. The price of the issue is 50 cents, but by subscribing now for The Horseman and this paper, you not only get both publications for a year for \$3, but can have your subscription start with the great historical number of The Horseman. All orders should be sent to the office of this paper.

BURKE'S GARDEN SHORTHORNS.

One of the finest exhibits of stock at the recent State Fair in Richmond was that of Shorthorn cattle entered by the Burke's Garden Cattle Company. The great 2-year-old bull, Red Cloud, was the object of admiration of the great throng which daily passed by him. It was the opinion of many that he should have had the "blue" as champion bull of any breed. This company is thoroughly equipped to furnish the best blood of the breed and invites inspection and correspondence of interested parties. See advertisement.

Washington, D. C., June 11, 1906.
I regard the Southern Planter as a good agricultural journal and easily worth the subscription price.

HON. J. F. RIXEY.

Let Us Send You Our Book.

about good wheels and good wagons that will save you a lot of work and make you a lot of money—the

ELECTRIC STEEL WHEELS and the ELECTRIC HANDY WAGON.

By every test, they are the best. More than one and a quarter millions sold. Spokes riveted to the hub. Can't work loose. A set of our wheels will make your old wagon new. Catalogue free.

ELECTRIC WHEEL CO., Box 146, Quincy, Ills.



ELECTRIC



BUGGY BARGAINS.

We are in a position to talk Buggies and Vehicles right from the shoulder. We have the latest models on exhibition and we feel sure we can please you, no matter what kind of a vehicle you want. Terms and prices are right. Come and make your selection or send for catalogues. RICHMOND BUGGY & WAGON CO., 1435 E. Main, Richmond, Va.

39.25 Keep Your Cash



This handsome driving wagon is yours for a free trial for 30 days. You make no deposit and no money. You'll save \$20.00 however, by buying it

direct from our factory. Covered by a guaranteed made good for a \$25.00 bank deposit that it will stay right two years. Write for our free catalogue giving full particulars.

The Anderton Mfg. Co., 42 Third St., Cincinnati, O.



STEEL WHEELS

with rubber tires double the usefulness of the iron wagon. We warrant them to last 10 to 15 years. Guaranteed to repair 2 months. Catalogue free.

EMPIRE MFG. CO., Box 124, Quincy, Ill.



WE'LL PAY THE FREIGHT

and send 4 Buggy Wheels, Best Tire on - \$7.75 With Rubber Tires \$14.20. 1 inch wheels \$4.94 4 in. wheels \$5.94. Catalogue \$2.75. Write for catalogue. Learn how to get it. Buggy Wheels \$5.00. Wagon Umbrella FREE. W.V. BROS., Cincinnati, O.



Well Drills

For Horse, Steam or Gasoline Power

Well Augers

For Horse Power

Address

LOOMIS MACHINE CO.

TIFFIN, OHIO

WANTED - Bills to Collect -

in all portions of the United States. No collection. No Charge. Agencies wanted everywhere. 25 year's experience—PALMORF COLLECTION AGENCY, 911 Main St., Richmond, Va.

NO PATENT YOUR IDEAS

\$100,000 offered for one invention; \$8,500 for another. How to Obtain a Patent? "What to Invent?" send free. Send rough sketch for free report as to patentability. We advertise your patent for sale at our expense.

Chandler & Chandler, Patent Attorneys, 931 F. Street, Washington, D. C.

Monarch Stump Puller.

Farmers having stumps to pull or land to clear, had better investigate the Monarch before buying.

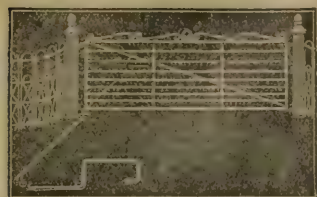
5 sizes from \$25 up. We ship on approval and guarantee satisfaction before we want your money. 6 years experience in pulling stumps. Write for catalogue and prices. JOS. W. RITCHIE, State Agent, R. F. D. 39, Groton, Va.

"Feeds and Feeding"

Prof. Henry's Great Book for Farmers and Stockmen.

Delivered anywhere for \$2.00

With the SOUTHERN PLANTER, \$2.25



MANLOVE SELF-OPENING GATE

ALWAYS IN ORDER.

This gate can be placed at any driveway entrance, attached to ordinary posts and soon pays for itself in time saved. It is opened or closed by any vehicle without assistance or stopping. By its use run-away accidents are avoided. Machinery is all above ground and so simple it never gets out of order.

It adds to the beauty, value, safety and convenience of any home. Address MANLOVE GATE CO., 272 E. Huron Street, Chicago, Ill.

High Carbon Fence

Page quality begins in our furnaces. The molten metal is tested until it is found to contain just the proper ingredients to make Page Wire—high carbon double-strength high-tensile wire. High enough in carbon to give it double the tensile strength of common fence wire and the springiness of a high-grade wire spring. Coiled by the Page process, it lets out and takes up like a spring; makes the fence adaptable to all soil and climatic conditions, and breaks the stock of animals running into it without breaking themselves. Our book is free. Write for it.

PAGE WIRE CO.
Box 514, Adrian, Mich.

COILED SPRING FENCE

Closely Woven. Can not Sag. Every wire and every twist is a brace to all other wires and twists full height of the fence. Horse-high, Bull-strong, Pig-tight. Every rod guaranteed. **30 DAYS FREE TRIAL** and sold direct to farmer, freight prepaid, at lowest factory price. Our Catalogue tells how Wire is made—how it is galvanized—why some is good and some is bad. Its brimful of fence facts. You should have this information. Write for it today. Its Free.

KITZELMAN BROS.,
Box 14 MUNCIE, INDIANA.

Save The Posts

Old field pine made to last longer than cedar or locust by creosoting with dead oil of coal tar. The creosoting of lumber makes it practically indestructible, stops all rot and it absolute death to all insects. Write for prices to the NORFOLK CREOSOTING CO., Norfolk, Va.



Ornamental Fence. Wood—for lawns, churches and cemeteries—also heavy steel picket fence—sold direct to consumer. Catalogue Free. Write for it.

Box K MERRILL, IND.

WASTEFUL SHABBINESS.

One can tell differences in personal character by looking at the houses and other buildings owned by different men. The thrifty, self-respecting man keeps his buildings in repair and well-painted; the thriftless, happy-go-lucky man makes his repairs after a rain has come through his roof and spoiled his hay or loosened the paper on his ceilings; he repaints after his lumber has rotted so that the nails begin to let go.

In painting, the old saying that "an ounce of prevention is worth a pound of cure," applies with peculiar force. There is no form of wastefulness more absolute than the sparing of paint that produces chronically shabby buildings. Every dollar in judiciously saved in paint means many dollars lost in lumber and carpenter work. And this form of waste is so inexcusable! Paint is to-day so good, so cheap and so convenient that a man must deliberately prefer shabbiness to neatness if he fails to use it when needed.

Ready mixed paint intelligently designed for beauty, durability and economy, in almost endless variety of tint and size of can, is found in every well-stocked village store. You choose your colors and the painter puts them on. This is bringing the painting problem down to its simplest terms; but like all the simple conveniences of modern civilization, that gallon can of ready mixed paint has behind it a pedigree of which royalty might be proud; celebrated chemists have labored to produce its pigments; engineers and inventors have designed and perfected the machinery that made, canned and labeled it; competent artists have designed its label and the color cards that accompany it, and a thousand workmen in mine, laboratory and factory have labored to bring together its constituents and to perfect it.

Now, more than ever before shabbiness in the matter of paint is wasteful, because lumber is becoming ever scarcer, dearer and poorer, while paint is becoming always better, more plentiful and relatively cheaper. L. J.

A FRUIT-EATING AGE.

It would be hard to characterize this age better in a few words than above. Everybody eats fruit. Every family should have a liberal supply of it the year around. A good orchard almost doubles the selling value of a place, and still further increases its keeping value, counting the health, convenience and pleasure of the family. As nearly all of our readers buy fruit trees they will do well to write the Continental Plant Co., Kittrell, N. C., who sells fruits trees of all kinds, strawberry plants, grape vines, etc., direct to the people at wholesale rates, for free catalogue.

A Neat Binder for your back numbers can be had for 30 cents. Address our Business Department.



Rotary Washer. A HOUSEHOLD NECESSITY.

Made on the most scientific principles of the best material: with our own patent electrically welded hoops sunk in the wood; it is compact, strong and durable.

Because we are the largest manufacturers of wooden-ware in the World enables us to make the best washer cheaper than others.

Booklets with full description of this wonderful washer sent on application.

The Richmond Cedar Works,
Richmond, Va.

Cutaway Tools For Large Hay Crops

CLARK'S REVERSIBLE BUSHAND BOB PLOW cuts track 8 ft. wide, 1 ft. deep. Will plow a new cut forest. His double action Cutaway Harrow keeps tons and moves 1800 tons of earth, cuts 80 acres per day.



NO MORE USE FOR PLOW His Rev. Duty Flow cuts a furrow 5 to 10 in. deep, 14 in. wide. All Clark's machines will kill witch grass, wild mustard, charlock, hardhack, sun flower, milk weed, etc.

Write or any foul plant. Send for circulars to the CUTAWAY HARROW CO., NIGGANUM, CONN.

Save Your Building Money

Make your own concrete building blocks. Stronger than brick or stone, cheaper than wood, price reasonable for high grade success Concrete Block Machine. Catalog and price list on application. HERCULES MFG. CO., Dept. A-102, Centerville, Iowa.

GINSENG Plants and Seeds for fall and Spring delivery 1906 and 1907. Popular prices, for further information address, C. F. CARTER, Seven Mile Ford, Va.

GET THE BEST



A Good Spray Pump earns big profits in and last for years.

The Eclipse

Is a good pump. As practical fruit grower we recommend the Eclipse sprayer in our own orchards. It cures their defects and then invented the Eclipse. It has success practically forced us into manufacturing on a large scale. You take no chances. We have done all the experimenting.

Large fully illustrated Catalogue and Treatise on Spraying—FREE.

MORRILL & MORLEY, Benton Harbor, Mich.



Defender Sprayer

All brass, easiest working, most powerful, automatic mixer, expansion valves, double strainer. Catalogue of Pumps and Treatise on Spraying free. AGENTS WANTED.

J. E. Gaylord, Box 82, Oshkosh, W. I.

U. S. GOVERNMENT

States that

Takanap Soft Naptha Soap

makes best Emulsion to kill SAN JOSE SCALE, TOBACCO THRIPS and OTHER INSECTS.

40 lb. kegs, \$1.90; 100 lb. kegs, \$4.50. Less freight in East. Special low prices in larger quantities.

THAYER-HOVEY SOAP CO., DARTY, PA.

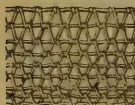
SAN JOSE SCALE

and other INSECTS killed by

GOOD'S

Caustic Potash Whale-Oil Soap No. 3

Endorsed by U. S. Dept. of Agric. and State Experiment Stations. This soap is a Fertilizer as well as an insecticide. 50 lb. kegs, \$2.50; 100 lb. kegs, \$4.50; full barrel, \$9.10. 30c per lb.; barrel, 42c lb. 30c. Send for details. JAMES GOOD, Original Maker, 939-41 N. Front Street, Philadelphia, Pa.



WARD FENCE.

Heavy Spring-Steel Double Galvanized. To Farmers, factory prices, freight prepaid. Catalogue Free.

WARD FENCE CO. Box 69 Marion, Ind.



LAWN FENCE

Made of Steel. Lasts a lifetime. We have no Agents. Sold to Farmers at Wholesale Prices. 7 cts. a foot up. Cheaper than any other. Catalogue Free. KITSCH'S BROTHERS, Box 412, Ellettsville, Ind.



Wire Fence 29c

48-in. stock fence per rod only. Best high carbon coiled steel spring wire. Catalogue of fences, rods and sundries FREE. Buy direct at wholesale. Write today. MASON FENCE CO. Box 50 Leesburg, Va.



IRON FENCE

LOW PRICE HIGH GRADE—CATALOGUE FREE

JOHN WIRE & IRON WKS. LOUISVILLE, KY.

BOOK ON POULTRY DISEASES FREE. A healthy, strong, vigorous flock is the only kind that pays. Conkey's famous book tells you how to keep your flock in that condition. Regular price 35 cents but for a limited time free to those sending 4 cents for postage and the names of two other poultry keepers. WRITE TODAY. The C. E. Conkey Co., 339 Ottawa Bldg., Cleveland, O.

A WONDERFUL OIL HEATER.

With the passing of the summer months comes autumn, and with it the chilly nights and mornings which force us to turn our thoughts to the problem of heating our houses, and we begin to look over our stoves and furnaces and get them in repair for the cold winter months.

To start stoves and furnaces in the early autumn brings more or less discomfort for the reason that they furnish too great heat during those portions of the day when the heat of the sun is still considerable. For such times the Perfection Oil Heater, equipped with a device which prevents all possibility of smoking, solves this hitherto perplexing problem.

There are also many times during the cold winter months, while the furnace and stoves are in operation, when they may not be equal to the task of warming remote rooms, hallways, etc. This is more apt to be true in the early morning before the full efficiency of the regular heating apparatus is developed. In many houses there are rooms not reached by direct heat. At such times and in such places the Perfection Oil Heater will be found a very valuable auxiliary. It will enable the household to eat its breakfast in comfort instead of shivering with the morning chill.

The Perfection Oil Heater produces a surprising amount of heat immediately after lighting and will heat an ordinary room in a remarkably short time. They are strong and well made in a design pleasing to the eye, and they are light enough to be easily carried from room to room as required.

In these days of numerous devices for illumination, there are still many who have not provided themselves with satisfactory lamps. The Rayo Lamp makes it possible for every one to have adequate light at a small cost. The Rayo Lamp is the best lamp for all-round household use. It is made of brass and beautiful nickel, and is an ornament to any room, whether in palace or cottage.

The perfection Oil Heater and the Rayo Lamp form a combination that makes home bright and comfortable. Their absolute safety and very moderate price make them a valuable and easy acquisition to any home. Both heater and lamp are warranted.

The chimney has as much to do with the light as the lamp has.

There is only one make of good lamp chimneys; there are many poor ones. Macbeth is the good one, the only one advertised, the only one worth advertising.

Sampson Co., N. C., June 29, 1906.

There is no agricultural paper I like better than I do the Southern Planter. It is a valuable paper to the Southern Farmer.

H. J. COOPER

SHIP ME YOUR

HIDES

Old Metals

Scrap Iron

RUBBER

Car Lots a Specialty

50,000
Hides Wanted

Write for Prices.
Satisfaction Guaranteed.
No Commissions.

CHECKS SENT SAME
DAY FREIGHT BILLS
ARE MARKED PAID.

Clarence Cosby,

Established 1890.

RICHMOND, VA.

LARGEST DEALER IN
Scrap Iron, Metals, Hides,
Etc., in the South.

REFERENCES:

National Bank of Virginia,
Bank of Richmond,
Bradstreet and Dun.

Northern Virginia Farms

Here are a few Bargains.

63.—516 acres. Natural Blue Grass land. About half of the place well set in grass; over 100 acres in old sod; splendid fences; water in all the fields; two running streams through the farm. Elegant young orchard, in full bearing; apples, peaches, pears and cherries. Farm is situated in a refined neighborhood, on a good, public road, with an elegant view of the mountain, and a broad stretch of cultivated land. Land is a little rolling, has about 100 acres of fine timber. This farm has the reputation of making fat cattle and sheep; situated 4 miles from the station, 1 mile from church, stores, mill and postoffice; 25 miles from Washington, by pike. Dwelling is a good 5 room house, with good, deep well in the yard, new sheep barn, good stable, corn house, and other out-buildings in good repair. The owner is getting old, and wants to sell. Price, \$8,000, on very easy terms.

No. 98.—132 acres. Every acre fine land, smooth and free from stumps, washes and waste places. Nearly all in grass. Nice clear stream running through the place. Two acres in orchard. All kinds of fruit. Land is heavy chocolate soil, easy to work, and produces abundantly. Has 5 acres of timber, rest is cleared and in good state of cultivation. Situated on a macadamized pike leading in to Washington. 20 miles from Washington. Dwelling is a new 8 room house, handsomely furnished, with good cool well at the back door, new barn just completed, new corn crib, good granary, hen houses and hog house. Situated in an elegant neighborhood of refined Virginians, close to schools, churches and store.

Price, \$5,500. Terms to suit.

No. 115.—This is an up-to-date brick and tile business, situated on the railroad with 10 acres of fine brick clay. The plant contains the following machinery, viz: 1 iron brick machine, 1 iron tile and combination machine, 3,000 drying pallets with sheds and frames, barrows, carts and tools. Everything in position to work. Dwelling is a new 8-room house, good water and with an abundance of fruit trees and grape vines. Price, \$3,700.

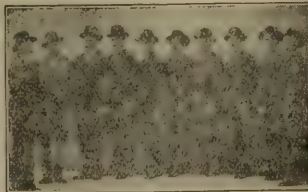
No. 116.—Contains 350 acres, 4 miles from 2 stations and electric R. R. 100 acres cleared, the balance is in timber; situated 1 mile from school and church. This land is in the best fruit section of Fairfax county. The land is a good quality of sand and loam, and rarely ever misses fruit. The buildings on this property are a little out of repair, but are tenable. This is remarkably cheap property, and can be made a nice estate with the right man to manage it. Price, \$3,300, one-third cash.

Send for my new list.

WM. EADS MILLER, Herndon, Va.

THE WONDERFUL DAVIS FAMILY.

We are showing herewith a photographic reproduction of Mr. B. J. Davis and his nine sons. This is the largest family of boys that has ever been brought to our attention, both in weight and height. The Davis family weighs 2,070 pounds—a trifle over a ton—and are nearly all "six-footers." The father is still living and is now 95 years of age.



It is a strange coincidence that the Davis brothers have all settled on the same line of business. The nine brothers are the owners of the Davis Cream Separator Company, Chicago, Ill., whose advertisement appears in this paper. This company has been in the separator business nearly twenty years, and has grown from a small beginning to a \$300,000 corporation.

The Davis brothers have adopted a novel method of selling their cream separators direct from their large factory. As their catalogue states, there is "no one between you and them," consequently they save separator buyers 20 to 50 per cent. on the price of a high-grade cream separator.

This wonderful money-saving proposition of theirs, as well as a large photograph of the Davis family, is more fully covered and shown in their Catalogue No. 126, a copy of which will be gladly sent to any reader upon receipt of a postal request, if he will kindly mention this paper. Just address Davis Cream Separator Co., 56 B, North Clinton Street, Chicago.

FARM TELEPHONES A NECESSITY.

The utility of the telephone to the farmer is becoming more pronounced every year. The endless satisfaction of being in close touch with neighbors, the railroad station, creamery and city, appeals not only to the farmer, but his family as well. The Jul. Andrae & Sons Co., 354 West Water Street, Milwaukee, Wis., specialize in supplying farmers and independent lines with everything pertaining to telephone systems. The Andrae people, who have been very successful in establishing telephone systems throughout the entire country, make a special telephone for farmer's use. Their instruments are constructed in such a manner as to enable them to be subjected to extra hard usage. We would advise our subscribers to write for the large book that is being given away free by the Andrae Company.

Northern Virginia Farm TO CLOSE AN ESTATE

A valuable stock farm, containing 130 acres, only 11 miles from Washington, 5 miles from Alexandria, Va., which afford excellent markets for all farm products. This farm was equipped for, and run as, a fancy stock and dairy farm and is improved by good dwelling of seven rooms; barn 40 by 60, with stable 60 head of stock and store 100 tons of hay and was built at a cost of over \$5,000; creamery, 20 by 40; hen house, 14 by 60, hog house, 14 by 60; a very large silo and all other necessary outbuildings. Fine spring water piped to house and barn from never-failing spring. A fine orchard of over 200 trees. The land is a little run down, but is a good quality of soil and easily improved. Located in a good farming district near schools, churches and only half mile from Southern and R. F. and P. Railroads. We are offering this farm to close an estate, and if sold at once will be sold with all farming implements, including wagons, carriages, harness, plows, cultivators and all implements to be found on an up-to-date farm; also one 10-horse power engine, corn crusher and wood saw and five fine cows, all for the very low price of \$5,500. This is a rare bargain and will not be on the market long. Write us for fuller description or come to see us and let us show you a real farm bargain.

ATKINSON & BALLARD CO., Inc., William H. Lanhart, President, 621 Thirteenth Street, N. W., Washington, D. C.

Fine Improved

VIRGINIA FARM

of 553 acres, one mile from Wolf Trap Station, five miles from South Eastern, Fairfax county, Va., for sale cheap if sold at once. One-half rich bottom land, one-half upland; three-fourths clear to plow; 40 acres heavy timber land; land in good condition; will produce 25 to 50 bushels corn or oats and 15 to 2 tons hay per acre; plenty of fruit; 2 wells, clear streams run through the farm; new 7-room dwelling; 2 barns, 40x60, nearly new; ample outbuildings, including machine and poultry houses; also my stock and farm machinery—5 horses and mules, 22 head cattle (some high-grade Red Shorthorns and fine Holsteins), 40 pure-bred Chester White hogs, 1 thrasher (nearly new), 1 new shredder, 1 horse power, and mill, sorghum mill, binder, mower, 2 wagons, hay carrier, pulleys and fork in hay barns; also a lot of small tools and implements, etc. Also about ten tons of hay and fodder. Price, including everything, \$12,000. Ready for selling, old age. For further particulars, write to JOHN CRAMER, owner, Box 138, South Boston, Va.

Small Tracts of Land Near the Sea, for Sale.

Our farm is too large. We offer a portion in "blocks of five" acres up, to suit purchasers. Well located. The sea; summer and winter resort; two electric railways, three miles off. One electric railway, one mile off. R. F. D. at the front gate. School, church, depot, stores, post-office one mile. Good neighbors all around. Norfolk thirty minutes away by electric railway; cars every hour. Pleasant far to the sea. These properties can be had near by if wanted. A. JEFFERS, R. F. D. 1, London Bridge, Virginia.

FARMS

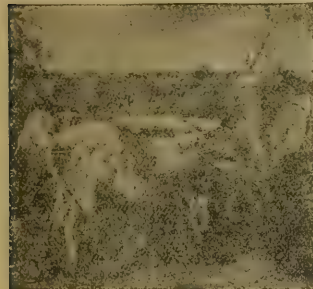
Prosperous and healthy section
Good Shipping Facilities.

FRANK H. COX, Ashland, Va.

HORNS POSITIVELY DANGEROUS.

It is Safer for All to Dehorn Every Cow, Steer and Bull.

Whether dairyman or stock-raiser this statement applies with equal force. Dehorned steers put on two to three hundred more pounds of flesh when compared with those having horns, because they rest more quietly. Dairyemen need not fear to dehorn. The excitement lasts but a few hours.



and the little loss of milk (usually less than 2 per cent.) is more than compensated by the greatly increased flow caused by the greater quietness of the entire herd.

The humane instrument to use, manufactured by M. T. Phillips, Pomeroy, Pa., is the Keystone Dehomer. It is made in two designs—improved and regular style. Both are standard the former being lighter in weight and of greater cutting power. It is built on the same principle as the regular Keystone.

The Keystone is very popular at experimental stations.

Mr. Phillips sends free a handsome book in orange and black that discusses the subject thoroughly.

THERE IS A BIG DIFFERENCE.

Laundry soap is intended for coarse work, such as washing clothes. Toilet soap is suited to taking the dirt from the skin. Shaving soap is different—or ought to be. It should thoroughly moisten the hairs, hold them firmly against the razor, and then leave the skin smooth, cool and velvety. Williams' Shaving Soap will do just this. The J. B. Williams Company, Glastonbury, Conn., have made a specialty of shaving soap for nearly three-quarters of a century, and it is the "only soap fit for the face." In another column they offer to send a trial sample for a 2-cent stamp. Be fair to your face and send for it.

Hyde Co., N. C., July 11, 1906.

I know that the good derived from the Southern Planter each year is worth many times the cost for three years.

CLOSS GIBBS.

BARGAINS IN FARMS

I describe below a few of the many bargains I am offering in Farm Properties in Northern Virginia, near Washington and the great markets of the East, in one of the finest sections of the United States. My list describes numerous other properties just as good. Send for it at once and I will assist you in making a good investment.

These farms are nearly all on Steam or Electric Roads in a growing and thrifty community.

Write or come to see me and I will treat you in accordance with my motto: "Honesty and Fair Dealing."

J. F. JERMAN, Fairfax, Va. Branch Office, Vienna, Va.
TELEPHONE CONNECTION.

No. 4.—100 acres; one of the finest farms in Virginia, in the very best of cultivation; large, 12-room house, large halls and cellar; water in the kitchen; beautiful lawn surrounded by hedge; all kinds of fruit and berries; very large barn and all necessary outbuildings; first-class fence all around the farm; divided into fields for pasture, meadow, etc.; stream through the farm; near the town of Vienna; steam and trolley lines. Price, \$13,000. Part cash, balance to suit. Would take city property in part.

No. 17.—125 acres; 65 clear and in good condition, balance in all kinds of timber; 7-room house, good barn and all necessary buildings; water in every field; good fences; all kinds of the very best varieties of fruit; three miles from Clifton and Fairfax Stations; near school and church; mill adjoins farm. Price, \$2,500, \$1,000 cash, balance to suit.

No. 21.—Very cheap farm of 100 acres; 90 cleared and in cultivation, balance in woods; 7-room house, small barn and cow shed; water in every field; good fences; all kinds of fruit; one mile from railroad, school and store. Price, \$1,800. Terms to suit.

No. 33.—Fine Bluegrass Farm; 500 acres; two sets of buildings; new 8-room house and cemented cellar; old house has six rooms; good well at the door of each house; two good barns and all necessary outbuildings; 45 acres in meadow, 30 acres in rye, 80 acres in good pasture, 65 acres for corn this year; one-half mile from school, church and store. This is a splendid place and very cheap. Price, \$3,500.

No. 97.—200 acres; 50 clear, the balance in timber; has a good building site; could be made a nice farm; 1½ miles from Fairfax on the pike. Price, \$25 per acre on easy terms.

No. 142.—315 acres; 250 cleared, the balance in timber; good size house and all necessary outbuildings, including a three-room tenant house; plenty of good water; some fruit; well fenced. Price, \$25 per acre; half cash, the balance to suit. This will make a good stock farm and it will divide and make two farms.

No. 152.—A fine, cheap Colonial home; 31½ acres; about 100 clear; fine, 17-room brick mansion in good condition and a beautiful shady lawn; plenty of good, pure water; large basement barn, stable, carriage house, carpenter shop, tenement, house of four rooms; henry, 30x25 feet, corn crib and wood house; 500 peach trees, 150 apple trees, 50 grape vines; also a good pear orchard and plum orchard. Price, \$9,000 to a quick buyer; just been reduced from \$15,000. This is a beautiful Colonial home and is a great bargain. Let me show you this place if you are interested.

No. 165.—176 acres; 100 cleared, the balance in all kinds of timber; new 7-room house with good cellar; basement barn, 38x26, and all necessary outbuildings; water at the door; partly fenced; all kinds of fruit; ¾ mile from railroad station, half mile from school, one mile from store. Price, \$3,000. Terms: Half cash, balance to suit.

No. 228.—124½ acres, near Fairfax Station; 74 acres cleared, the balance in all kinds of timber; frame house of seven rooms with cellar and porches; new barn, 20x40, with

large cow shed attached; all necessary outbuildings; well at the door and stream through the place; good fencing; all varieties of fruit; ¼ mile from railroad, school less than a mile, ¼ mile from church and store. Price, \$3,800. Terms: One-half down, the balance to suit.

No. 294.—33 acres; one mile from Herndon; about 75 acres cleared, the balance in timber (hardwood); 12-room house; basement barn, 30x32, corn house, hen house, wagon house and other necessary buildings; spring and well water; wire fence; all varieties of fruit; one mile from railroad, one-fourth mile from school and store. Price, \$4,500, half cash. Will sell 75 acres with buildings for \$5,750. This is a desirable and cheap place.

No. 333.—A fine Stock Farm; 381 acres, 300 in the highest state of cultivation, 81 acres in fine timber; 12-room house; well at the door; beautiful lawn; barn, 56x48; cow barn, 18x100; all necessary outbuildings; all kinds of fruit; well fenced; five miles from railroad, near school, church in sight, store one mile. Price, \$11,000, on easy terms. This farm must be seen to be appreciated.

No. 339.—Fine Stock Farm in Loudoun county; 110 acres, 100 clear, the balance in oak timber; 10-room house with cellar; barn, 35x28, spring house, separator house and cow-houses; place well watered, excellent spring near the house; well fenced; some fruit; six miles from railroad, near school, church and store. Price, \$50 per acre, one-third cash, the balance on easy terms. The quality of the land is excellent; will make a fine dairy farm; has a silo that holds 125 tons; only two miles from the creamery.

No. 430.—Near Clifton; 170 acres; 5-room house; beautiful shade; well at the door; some outbuildings; partly fenced; some fruit; two miles from railroad, same to church, school and store. Price, \$10 per acre on easy terms. Will make a fine investment.

No. 485.—107 acres, about 60 cleared; good 6-room house with fine hall and cellar; fine well of water at the door; barn and all necessary outbuildings; well fenced; most all kinds of fruit; two miles from railroad, one mile from school, two miles from church, three-quarters mile from store. Price, \$1,500, one-half cash, the balance to suit. This is a very cheap farm; has a quantity of good timber on it.

No. 449.—Sterling, on the Bluemont Division of the Southern Railroad; 253 acres, 180 cleared, 73 in timber; 8-room house with cellar, barn, 35x20; large cow barn, chicken, meat and tool houses; place is well watered; fenced with wire; 18 acres in orchard; railroad runs by the farm; three-fourths mile from school, church and store. Price, \$30 per acre. This is a nice farm, is fine for stock and dairy business. It needs to be seen to be appreciated.

No. 454.—Near Clifton Station; 90 acres, 70 clear, the balance in good timber; 4-room house; some outbuildings; good orchard; partly fenced; two miles from railroad, school, church and store. Price, \$40 per acre, one-half cash, the balance in one and three years. This is a very desirable piece of property; it lays along the public road; the land is in a high state of cultivation; will make a fine farm.



**\$500
BUYS
A
FARM
in Virginia
Complete**

With comfortable three-room cottage like cut. These 25-acre poultry, fruit and vegetable farms are only two miles from Waverly, Va., a modern little town on the N. & W. Ry., midway between Norfolk and Richmond. Climate, water and markets for produce cannot be excelled. Write for further information and for lists and booklets showing farms and plantations from \$10 per acre up. F. H. LABAUME, Agri. and Indl. Agent, Norfolk & Western Ry., Box 500, Roanoke, Va.

Farms, Timber Lands, Town Properties.

Send for my new list of choice bargains in real estate situated in ROCKBRIDGE, BATH and AUGUSTA COUNTIES. All information cheerfully and promptly answered. Livestock, etc., free to those who mean business.

J. W. GUINN, Goshen, Va.

A WINTER HOME

FOR SALE OR EXCHANGE.

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BIG DUROC SALE—"BEAT HIM IF YOU CAN."

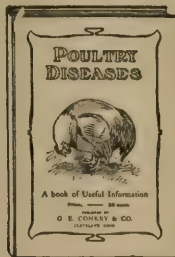
One of the best Duroc sales recently held in Indiana was the event of September 20th at the home of Joshua Rothrock, Centerton, Ind., southwest of Indianapolis. The weather was inclement and the crowd was not large, but it was a business crowd. The average of nearly \$25 was not bad when the fact that nearly all were spring pigs is considered.

The great sire and show hog, "Beat Him if You Can," was catalogued, but was not offered because of the rather small attendance of breeders desiring a high quality herd header.

When Mr. Rothrock stated that if enough were interested he would put him up, one breeder said he would start one-fourth interest in him at \$250. He was not offered. But negotiations were commenced which resulted in S. R. Quick & Sons, Gosport, Ind., and Jap Duckworth, Martinsville Ind., each purchasing one-third interest for \$1,000 each, Mr. Rothrock retaining the other one-third.

This famous hog is a son of "Can't Be Beat" that sold recently for \$2,500, and his dam is "Dewdrop Maid," the dam of the heads of seventeen herds, representing four different States. He has a fine show record, weighs 710 pounds as a 3-year-old not in show flesh and fitness and is unquestionably one of the greatest hogs of to-day.

Messrs. Duckworth and S. R. Quick & Sons made purchase of the majority of the pigs sold that were sired by "Beat Him if You Can." Quick & Sons also secured "Bessie's Top Notcher" by "Top Notcher," the sire of "Tip-Top Notcher," that it will be remembered recently sold for \$5,000, the highest price ever paid for a Duroc hog.



A most excellent little book, "Poultry Diseases," which was formerly sold for 25 cents by G. E. Conkey & Co., Cleveland, O., can now be had free by sending in the postage, 4 cents, and names and addresses of two neighboring poultry keepers. It is a book you should have if you keep poultry. Notice the Conkey advertisement for particulars.

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HOW THE TORRENS SYSTEM AFFECTS CLERKS AND SHERIFFS.

CHAPTER V.

Let us look at this matter from the standpoint of the county officers—that worthy class of citizens in whom the people have shown their confidence, and who certainly deserve consideration at the hands of our law-makers. Not that any law should ever be passed in the interests of office-holders at the expense of the people who confer the office and for whose benefit it should be sacredly administered; but that every public servant should be fairly treated and that the services required of him should be fairly remunerated.

PUBLIC OFFICE A PUBLIC TRUST.

The great doctrine that public office is a public trust began to be conceived when offices ceased to be hereditary or the gift of arbitrary power. That eloquent English orator and powerful writer, Edmund Burke, for whom England was indebted to Ireland as in so many other instances, foreshadowed the idea in his "Reflections on the French Revolution," and Thomas Jefferson is reported to have said in 1807: "When a man assumes a public trust he should consider himself as public property." But it remained for the logical and incisive John C. Calhoun to define the principle clearly in a speech delivered on July 13, 1835. Said Senator Calhoun: "The very essence of a free government consists in considering offices as public trusts, bestowed for the good of the country, and not for the benefit of an individual or a party." You will observe that this sentiment applies to members of the Legislature as well as to those who occupy positions of less responsibility. If it is true that county offices are bestowed for the good of the country and not for the benefit of individuals, it is also true in a larger sense that the office of legislator is likewise bestowed for similar purposes and involves the highest obligation to discover and promote the general good. This is an obligation you should bring home to every member of the General Assembly in the present instance, since it is plain that the adoption of the Torrens System will not only help you individually, but also benefit the public at large.

CLERKS OF COURTS.

Under the pending bill all clerks of circuit and city courts, with chancery jurisdiction, are made registrars, and all acts of registration are to be performed by them under the direction of their respective courts. All the proceedings for registration of titles are to be had in the circuit court of the county or chancery court of the corporation where the land, or the greater part thereof, lies. And all the records are kept in the clerks' offices of these courts convenient to the homes of those who own the lands. As nothing can affect registered land,

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A thoroughly competent and reliable man, who has had fifteen years' practical experience (including eight years with Biltmore Farms) with high-class Jerseys and Berkshires and is also experienced in all branches of modern dairying, wishes to secure a position (farther south than present location), either on salary or shares; would go in on shares with party who would furnish the capital, and advertiser would guarantee a good interest on the investment after the first year, or would accept a salary to manage a strictly first-class established herd, or part in salary and part in share of sale of products.

Advertiser is a man of wide experience and has been successful as a breeder and exhibitor of high-class Jerseys and Berkshires and has a wide acquaintance among breeders in this country, Canada and England. All references furnished.

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For the treatment of the LIQUOR, OPIUM, MORPHINE, and other Drug Addictions. The Tobacco Habit, Nerve Exhaustion.

except what is registered on the certificate of title, the services of the clerk will be necessarily called into requisition whenever there is any transaction with registered land. The experience of other countries shows that the transactions with registered lands far outnumber those with unregistered lands, and it will be the same case in Virginia. You can see that this must be so, because the Torrens System will reduce costs, prevent delays and remove obstacles now encountered in the transfer of lands. It will open up new uses for real estate by rendering it an acceptable basis of financial credit and tend to give it a ready market value by enabling it to become the subject of commercial dealings. In other words, the services of clerks will be multiplied and your fees will be proportionately increased. You will not only get more, but better, fees under the Torrens System, because the registration of transactions can be performed more quickly than the recordation of deeds under the old system. If you will study the bill, and particularly section 57, you will understand how it will help your office. But if you should be unable to get a copy of the bill, you may rely upon the statements of Hon. S. P. Waddill, Clerk of Henrico county, who was a member of our recent Constitutional Convention. Mr. Waddill has been interested in the Torrens System for some years, and voted for that provision in the Constitution authorizing the Legislature to establish a court, or courts, for the administration of the system. See Constitution, section 100. After giving the subject due consideration Mr. Waddill became convinced that the Torrens System would not only benefit the clerks, but all the people of the Commonwealth, and expressed this opinion without hesitation in an interview published in *The Times-Dispatch* on March 4, 1903. Similar views were entertained and expressed at the same time by Col. Charles O. Saville, Clerk of the Chancery Court of the city of Richmond, and by Mr. H. E. DuVall, Clerk of the Manchester courts. These gentlemen knew what they were talking about, and investigation would probably lead every clerk in the State to agree with them fully.

SHERIFFS.

Special duties are also required of sheriffs under the Torrens System, and it is believed that they will find it of advantage to themselves as officers as well as individuals. The original registration of titles will give them employment, as provided in section 14 of the bill; and under section 57 they will receive such fees as may be allowed by law for like services in other cases.

(TO BE CONTINUED.)

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JAPAN IN AUTUMN.

By TRAVELER.

Japan, always lovely, is perhaps at its best in autumn, when the weather is fine and bright and when the constant rains, so discouraging to sightseeing in the spring, have ceased. The joy of the traveler then is the open life, and one can live in the open air up to Christmas without needing more than a light wrap, if one keeps near the coast. September is still hot, the best travel months being October and November. Early in October there is the feast of harvests, corresponding to our Thanksgiving Day. On this occasion the peasants carry offerings to the gods from the crops, setting them before the altars with much rejoicing, if the fields have yielded abundantly. Peddlers then begin to carry about for sale baskets of the most beautiful chrysanthemums, swung on poles over their shoulders. For a raw cents you can buy on the streets immense bunches of these flowers, such as our florists at home charge extortionate prices for. The plants are cultivated very carefully in rich spots with liquid manure, trimmed and pruned back till the stems grow thick and stocky and each one bears a large, handsome blossom. Every little cottage has its border of brilliant-colored blooming plants—gold, wine-colored, bronze, pink or white. The chrysanthemum is so well established as the national flower of Japan that the imperial crest is the kiku-no-mon, or 16-petalled chrysanthemum. The fanciers carry their culture of the chrysanthemums to an extreme, fertilizing and mulching a plant till it produces blossoms the size of an infant's head, sometimes grafting as many as twelve different varieties on one root, which all bloom together without mingling their colors, or twining the plants over bamboo frames into the shapes of birds or animals. At the flower shows there are theatrical scenes formed entirely out of the blossoms and foliage of chrysanthemums, which are woven over frames. The figures have wax faces, otherwise the whole thing is formed of flowers and leaves. Scenes from the Russo-Japanese war were represented in this way—naval engagements, cavalry charges and all sorts of bloody scenes, depicted to the life, on stages improvised for the occasion. It was certainly the most unique and ingenious use to which I ever saw flowers put.

At one of the flower shows I attended I saw great bushes bearing from 500 to 1,000 large, perfect blossoms, supported on frames, covering a large area. To all these different varieties they gave the most fanciful and poetic names; a white one is called "dye of the dew" or "moonlight on Fuji"; the pink, "sunset glow" and the red, "heart of a dove."

With the first frost the leaves begin to turn and to take on such exquisite tints that writers sing of the autumn

Poultry Food Seed Wheats Rye, Oats Flowering Bulbs.

Write for Prices.

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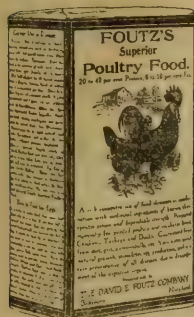
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follage as nature's brocades. Yamashimi, the nymph of the mountains, is said to weave this brilliant covering for her abode. At Nikko, where the magnificent red lacquer shrines of the Shoguns are situated, the maples are so surpassingly beautiful that pilgrims come from all parts of the world to gaze upon them in their dress of gold and scarlet. The mountain sides are covered thickly with them and one may see them, at the same time, in all stages of development, from fresh green in the protected spots, through all the light shades of red and yellow to the deep brown of the fallen leaf. Bands of school boys with their masters climb over the hills for the most brilliant branches and decorate passers by with twigs and leaves. At the time of our visit to Nikko (October, 1905) ten thousand sailors from Togo's victorious fleet were given passes to visit the shrine and offer thanks for peace. We saw them making long prayers to the gods and giving generously to the priests. These pious duties performed, they, too, became maple pilgrims and broke off great boughs to carry back to their respective boats. Children by the roadside gave us bouquets of maple leaves and ferns, refusing stoutly the pennies we offered them in return. "Cumshaw" (a gift), they exclaimed, shaking their heads and smiling at us.

The Maple Club, or Koyo-Kwan, is the most famous tea house in Tokyo. In its gardens is a curious collection of gnarled and dwarfed maple trees in pots. Some are forty or fifty years old and still are only a plant in size. They have the knowing expression of some wizened little old man. All the decorations of the club are maple leaves and the cakes and bonbons are served as maple leaves in natural colors. The Geishas here perform a famous maple dance, Royas-adori, dressed in crepe kimonas, embroidered in maple leaves and holding in their hands fans with similar decorations. The kimonas are made very long, with sleeves reaching to the floor, but the girls manage their draperies easily and gracefully, waving their bodies as a tree blown by the wind.

The Emperor's birthday, in November, marks the height of the autumn season. It is a national holiday and a time of general rejoicing. The school children have a celebration; there is a review of the troops, a garden party and reception at the palace, and a great ball at the Foreign Office, but the last-named function has been omitted for late years on account of the war.

After this the wind blows down cold from the north, and the peasant draws his thick, wadded kimono around him and hovers over his brazier of coal, this being his only defence against the rigor of winter.

Warranted to Give Satisfaction.

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Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a Human Remedy for Rheumatism, Sprains, Sore Throat, etc. it is invaluable. Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Extensive for descriptive circulars, testimonials, etc. Address

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How to keep them sound, how to remove crows, head cuts and wounds, cure Curb, Splint, Spavin, Ringbone. The best horsemen know it's by using

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Used 26 Years.

Caruthersville, Mo., June 23, 1905.
Dr. B. J. Kendall Co.,
Farmington, Pa.
Gentlemen—Please let me
send me one of your
bottles of "Kendall's
Spavin Cure" for the
horse and his "Dis-
cussion." I have
your Ken's full Spavin
Cure since 1879 and
have cured 100 K's.
Yours truly,
MART FEENEY,
Sub-Editor, Light Co.

PRICE \$1; 6 for \$5.
Great value for family use.
All druggists sell it.
If you are a subscriber,
Great book, "Treatise
on the Horse," free
of charge or Dr. B. J. Kendall Co.,
Farmington, Pa.



DEATH TO HEAVES
NEWTON'S HEAVE AND COUGH CURE
A VETERINARY SPECIFIC.

It is a specific for all heaves, coughs, etc. It is a safe and reliable remedy for all these ailments. It is a safe and reliable remedy for all these ailments. It is a safe and reliable remedy for all these ailments.

No More Blind Horses For Specific Ophthalmia, and other sore eyes, Barry Co. Iowa City, Ia. have a cure.

"RARVA" MEAT MEAL

85 Per Cent. PROTEIN 7 Per Cent. FAT

IS A

POULTRY FOOD

THAT IS :

ECONOMIC,
CLEAN,
PURE.

A SURE

EGG PRODUCER

AND

MEAT BUILDER

SAMPLE ON REQUEST

SACK 100 LBS. - \$3.00.

RICHMOND ABATTOIR.

Box 267. Department M. Richmond, Va.

Send for the "Rarva" Booklet.

NEW BERKSHIRE BLOOD.

Mr. W. A. Willeroy, whose farm is at Sweet Hall, King William county, Va., has recently added some choice Berkshires to his already fine herd. Among them are "Congressman" (95121) by "Manor Faithful" (imported), out of "Her Majesty" (imported); "Leone" (95124) by "Manor Faithful" (imported), out of "Highclere Lady of Biltmore" (bred by Biltmore Farms); "Montview Lady Lee III. (95127) and "Montview Lady Lee IV. (95128), both by "Montview Faithful" (bred by Filston Farms and owned by Carter Glass), and out of "Montview Lady Lee" (bred by Elkton Farms and owned by Carter Glass).

These hogs have back of them a long pedigree of sires and dams of some of the best Berkshires in this country and England and are a choice selection for any breeder's pens.

"Manor Faithful" and "Her Majesty" are two of the best hogs and biggest prize winners, both in America and England, that were ever imported to America. "Manor Faithful" weighed 1,100 pounds in show condition. The pig from this mating is especially prized by his new owner, as "Manor Faithful" is dead and consequently the pig cannot be duplicated. Mr. Willeroy has on his farm now over 100 Berkshire hogs, and tells us that by the last of the year his herd will have produced about 200 pigs for this year and he hopes to nearly double this in 1907.

The Horseman and Spirit of the Times has just issued a very fine special edition of this well-known horse paper, commemorating its seventy-fifth anniversary. It contains a complete history of the horse in America by Hamilton Busbey, and the Presidents of the governing associations of the trotting and driving clubs join in a symposium on the subject. It is also finely illustrated throughout.

Record No. 106328—Ringbone that had been unsuccessfully fired by two different doctors; owner cured the case with Fleming's Spavin and Ringbone Paste and later refused \$200 for the animal. Write Fleming Bros., 230 Union Stock Yards, Chicago, for free copy of Fleming's Vest-Pocket Veterinary Adviser.

Darlington Co., S. C., July 14, 06.

I read the Southern Planter with a great deal of interest, and believe it is the best of its kind published in the South.

G. O. MERTZ.

Spартанбург Co., S. C., July 14, 06.

I could not get along without the Southern Planter's monthly visits. It is a nice, clean, up-to-date journal.

S. B. WEAVER.

Always mention The Southern Planter when writing to advertisers.

"SureHatch" Incubator

It has the **highest** record in hatching and the **lowest** prices in selling. 10 years on the market.

Used and recommended by **more** poultry raisers than any other—bar none.

No trouble to operate. **Runs itself. Pays for itself**—with one hatch. Guaranteed five years.

It will hatch chicks for you **better** and **cheaper** than hens. If not, we take it back.

This is a plain, fair and square offer—no monkey business.

Investigate it. Our new 100-page Sure Hatch book tells all about it; also how you can do better with your poultry.

Nobody ever printed such a valuable Poultry book to give away.

Write today for a **free** book, with prices, freight prepaid.

SURE HATCH INCUBATOR CO.

Box 8, Fremont, Neb.; or Dept. 8, Indianapolis, Ind.



RONOUNCED PRACTICALLY PERFECT

Leading poultry experts say the many improvements in the new

1906 Pattern

Standard Cyphers Incubator

make it worthy the name "The Perfect Hatch." Sold on 90 days trial, to prove that in convenience of operation, in economy of oil, in certainty of results; in large hatches and especially in strong and healthy chicks, it has never been equalled. Our new catalogue tells why. A new guide, 28 pages, (sent) seven practical chapters, 500 illustrations, free if you mention this paper and send addresses of two persons interested in poultry.

Address nearest office.

Cyphers Incubator Co., Buffalo, N. Y.

Chi. agts., Boston, New York, Kansas City of San Francisco.

\$6 UP. These Incubators

The New Brooders \$3.75 up

Standard

Strong, well made. Simple, practical and successful. Fully Warranted. None better at any price. Catalog free.

New Standard Incubator Co.,

Box 80, Ligonier, Indiana.



2 Hatches Free

And a 5 Year Guarantee

Most liberal offer ever made. Direct from factory to you at about half price for a short time.

Brooders are the best and most convenient to use. A proven success by thousands of poultry raisers. Catalog explains all. It's worth doing to you. We send it free.

THE GEM INCUBATOR CO., Box 503, Trotwood, Ohio.



CHICKENS.

COOK'S WHITE ORPINGTON, DUSTON'S WHITE WYANDOTTE, HAWKINS' DRESSED ROCK. Nothing but the best at reasonable prices.

PINE MISS CLARA L. SMITH, Prop., Landor Poultry Yards, Creston, Va.

ROSE COMB WHITE LEGHORNS.

Cocks or Cockerels, \$1.25, \$2.50, to \$5.00 each; write your wants, Fred Nussey, Massaponax, Va.

Glenoe Farms Verona, N. C.

We desire to announce to the public that we have purchased the entire BILTMORE STRAINS of S. C. and R. C. WHITE LEGHORNS and S. C. BROWN LEGHORNS, acquiring all their prize winners, interest and will for said breeds; in addition to the fine strains that we have been carrying, BARRED PLYMOUTH ROCKS, WHITE WYANDOTTES, LIGHT BRAHMAS, WHITE and PARTRIDGE COCHINS, WHITE CRESTED BLACK SPANISH, BRONZE TURKEYS and MUSCOVY DUCKS and MAMMOTH ROUEN DUCKS.

We will be glad to quote you prices on stock and eggs.



Poplar Hill Poultry Farm
Dr. H. H. LEE, Prop.

CHOICE YOUNG BIRDS now ready for shipment, also some of my last year breeding birds will be sold at Bargain Prices.

Order early and get the best birds. Choice Cockerels from \$1.25 to \$1.50, females \$1.00 each.

R. F. D. No. 4, LEXINGTON, VA.

A FEW CHOICE

S. C. Buff Orpington

Pullets at \$1 and 75 cents each, according to age.

J. W. WARE, Culpeper, Va.

White Wyandottes

(DUSTON STRAIN.)

Natures Best Utility Fowl.

Three Blue Ribbons

won at

State Fair,

Richmond.

1st. Cockerel, 1st Pen Pullets, 1st Pen Hens.

A limited number of Cockerels like winner at \$5.00 each, others at \$3 and \$2.

Pullets \$3 to \$2 like pen of winners.

Also late hatched pullets \$1.00 each.

Eggs for sale in December.

R. RANDOLPH TAYLOR,

HICKORY BOTTOM POULTRY FARM

Negrofoot, Hanover Co., Va

PURE BRED

White Wyandottes.

(Duston Strain.)

Spring Hatched

Cockerels and Pullets.



25 Spring Hatched

S. C. BROWN LEGHORN COCKERELS.

Write Us for Prices.

ELLERSON POULTRY YARDS, J. W. Quarles, Prop ELLERSON, Va.

White Wyandottes

R. C. B. LEIGHORNS.

Pullets and Cockerels of both breeds. Splendid healthy young stock. I have shipped everywhere and have never had a complaint. WHITE WYANDOTTE EGGS only at \$1 for 15 at present. Write me your wants. A. L. PARKER, Fall Creek Poultry Farm, Ashland, Va.

WHITE WYANDOTTES.

Get them, stick to them—the chicken of the day. Choice pens. Egg record furnished. One pullet 78 eggs December 24 to March 1st. Cockerel in cut for sale.

H. B. ARBUCKLE, Maxwellton, W. Va.



White Wyandotte Cockerels

AND PURE BRED

POLAND-CHINA PIGS.

Breeding and prices can't be beaten. Order and get your money's worth.

DUNLORA POULTRY YARDS, Rudder, Sumner County, Va.

White Wyandottes. White Leghorns.

I have for sale a limited number of Hens and Pullets and quite a number of the Cockerels of the above varieties at reasonable prices. F. C. LOEWOFF, Yonkers Mills, Va.

ENQUIRER'S COLUMN.

GRAFTING WAX.

Please say through your enquirers' column where grafting wax can be bought ready prepared; also please give a receipt for making the wax.

AN ENQUIRER.

We think you might possibly get the wax from some of the nurserymen advertising in THE PLANTER or perhaps from some of the seedsman advertising. The nurserymen are the largest users of this substance and usually make it for themselves. To make wax take four pounds of rosin, two pounds of beeswax and one pound of tallow; melt together until the whole thoroughly mixes, then pour into a bucket of water at tepid heat; oil the hands and work the mixture until it becomes a pale yellow color and then roll into sticks or lumps and lay away for use. When wanted for grafting put into a bucket of tepid water and soften sufficiently to work nicely round the graft.—E.D.

GRAZING CROPS FOR HOGS.

Will you tell me what to sow for hogs to run on next after rye, oats and rape in the spring? At what time of growth should hogs be turned on sorghum? If there be more than one crop to come between oats, rape, etc., please name them and give the order in which to sow them and the proper stage to turn on them.

E. A. ESTES.

Halvy vetch or the English vetch sowed now in mixture with wheat oats and rye will make grazing for February and March. Canada peas and oats sowed in December or January will make grazing for April and May. Rape sown in February or March will make grazing for May and June. Cow peas or cow peas and sorghum sown in April or May will make grazing for July and August. Soy beans or soy beans and cow peas sowed in May will make grazing for August, September and October. Sorghum seeded in May will make grazing in August, September and October. Peanuts and sweet potatoes planted in May will make feed for the hogs in October and November. Artichokes planted in February or March will make feed for them in December and January. Pumpkins planted in the cornfield in May or June will make feed for hogs from September to December. Rape sowed in August and September will make grazing for October, November and December. The more matured the growth of any of these crops when the hogs are turned on the more feed and the richer feed will they be. The young growth is always largely water and, therefore, lacking in feeding quality.—E.D.

APPLES ROTTING—LICE ON POULTRY—FRESH FOR STOCK.

1. Will you kindly tell me what makes apples rot on the tree and fall

Eggs for Hatching

From Best American and Imported Strains. \$2.00 per Setting; \$10.00 per 100 of following breeds:

S. C. Buff Orpingtons
White Plymouth Rocks
and S. C. Black Minorcas.

S. C. WHITE LEGHORNS \$1.50
PER SETTING \$8.00 PER 100.

We Breed only Pure-Bred Poultry of highest qualities. Largest practical pure-Bred Poultry Farm in the South.

Fox Hall Poultry Farm,
R. F. D., No. 2. Norfolk, Virginia.



FOR SALE

SINGLE COMB BROWN LEGHORN COCKERELS, sired by First Prize Cock (weighing seven pounds), at Virginia State Fair, Richmond; also yearling Hens at \$1 each or \$10 dozen; also Barred Plymouth Rocks, Bradley Bros. strongest Pullet and Cockerel line. I won on my Leghorns at Virginia State Fair, the largest show ever held south of New York—viz.: First Cock, first and second Cockerel, first Hen and second Pullet, no pen being shown by me. My first Cockerel was pronounced by Judge Lambert to be the best Leghorn in show of any variety. Can sell you stock the equal of any bred in America at bargain prices, considering quality.

STRAWBERRY HILL POULTRY YARDS, Box 287, Richmond, Va.

Breeding yards four miles from city on Chesapeake and Ohio.

Member American Leghorn Club; member Virginia Poultry Association.

50 Single Comb
White Leghorns. 50

I have for sale 50 S. C. W. Leghorn hens and pullets, 30 yearling hens, 30 pullets. Good ones, \$12 per dozen. \$45 for the lot. If you want them, write quick. CAL HUSSELMAN, Roxbury, Va., R. F. D. 1.

SINGLE COMB

White Leghorn

Cockerels, pure-bred, for sale at farmers' prices. Mrs. JNO. SANDERS, North, Va.



STOCK AND EGGS CHEAP.

45 varieties Standard Bred Chickens, Pigeons, Ducks and Turkeys. First 1 log illustrated and tell all about Poultry, feeding, care and our big premium offer. Best way to get poultry of the best, etc., only 10c. John E. Hartwell, Harrisburg, Pa.

Birds, Handsome Birds, for Sale Cheap.

S. C. W. LEHORN (Biltmore strain)
Cocks, Cockerels, yearling and 2-year-old
Hens, \$1.00 each, \$10.00 per dozen. Some
fancy stock at \$1.50 each.

Handsome Cockerels from the S. C. BUFF
ORPINGTONS, S. C. RHODE ISLAND
REDS and B. P. ROCKS at \$1.00 each. Ex-
cellent sized birds with beautiful plumage.
Satisfaction guaranteed.

Mrs. F. E. WILLIAMS, Wilmont Stock and
Poultry Farm, Charlottesville, Va.



Valley Farm
BARRED ROCKS
S. C. B. LEGHORNS
500 CHICKS, some show birds
Some for utility.
CHAS. C. WINE, Mt. Sidney, Va.

POULTRY. GEESSE.

Trio Black Minorcas—Cockerel, two
Pullets \$2.50
Trio Buff Orpingtons—Cockerel, two
Pullets 3.00
Trio Young Geese—White Gander, Gray
Geese 3.00
ALL BEST STRAIN AND HEALTHY.
MRS. W. C. PETTY,
R. F. D., Rapidan, Va.

GLENVIEW ORPINGTONS.

S. C. BUFFS Exclusively.

Some 3 year old hens at special bargain
prices. Must be sold before cold weather. A
postal will bring you the facts. B. S.
HORNE, Kewick, Va.

I HAVE FOR SALE

300 S. C. BUFF ORPINGTON

cockerels and pullets—also one pen of one
year old hens and one year old cock; 150 S.
C. R. L. RED COCKERELS, 150 R. C.
WHITE WYANDOTTE Cockerels. Prices
reasonable. FOREST PARK FARM, Charles
W. Smith, Prop., Williamsburg, Va.

ELBERON POULTRY YARDS.

AMMOTH BRONZE TURKEYS, choice
birds from pens headed by 4½ and 46-
pound Toms.
SILVER LACED WYANDOTTE Cockerels.
SILVER PENCILLED WYANDOTTE Cocker-
els (Wyckoff strain). Eggs in season.
OTHO M. COCKES, Elberon, Va.

PAGE VALLEY

POULTRY YARDS

Are now making a special offering of Brown
and Buff Leghorns, Black Minorcas, R. I.
Reds and Buff Orpingtons. An opportunity
to get good breeds at low prices.
C. L. SHENK, Box P, Luray, Va.

SPRING BROOK POULTRY FARM,
Calverton, Va.

S. C. B. LEGHORNS

and Black Minorcas
exclusively. 1½ and 2 lb. Cockerels, 50c. up
according to quality. Eggs in season.
Satisfaction Guaranteed.

off badly. What will prevent it?

2. What will kill lice on poultry,
and what will keep them out of the
hen house?

3. I have a good mountain farm in
Clarke county near Paris, and raise
stock, but find a difficulty in raising
feed to carry them through the winter.
Will you kindly advise me the best
and cheapest way to raise plenty of
feed and how to economize in the use
of the land. Can I plant Canada peas
in March and cut them in time to raise
a crop of corn for fodder or a crop
of millet or Hungarian on the same
piece of land, and is there any dan-
ger in feeding peas to stock.

A SUBSCRIBER.

Clarke county, Va.

1. The bitter rot is one cause of ap-
ples rotting on the trees. For a reme-
dy for this see our answer to an en-
quirer in this issue. Another cause
is the codlin moth, which produces
the worm found in so much of the
fruit which drops and rots. The reme-
dy for this is to spray with Paris
green when the fruit is just set.

2. Persian insect powder dusted into
the feathers of the hens will kill the
lice on them. If you take care to pro-
vide plenty of dry road dust for the
hens to dust themselves in and keep it
dry at all times and put a little to-
bacco dust into it the hens will keep
themselves free from lice, provided
you keep the lice out of the houses.
To do this whitewash them with lime-
wash in which mix a pint of kerosene
to a bucket of limewash and wash the
perches and nest boxes with kerosene.

3. You should be able to grow plenty
of feed to carry a good head of stock
through the winter by growing fodder
crops. In May you should plant corn
with cow peas put in the rows at the
second working of the corn. Sorghum
sown broadcast in May at the rate of
one peck to the acre with one bushel
of cow peas per acre should make you
a heavy crop of feed. Sorghum plant-
ed in rows like corn and grown to
maturity should also make you plenty
of feed. Corn planted in rows 2 feet
6 inches apart and eight or ten inches
apart in the rows should also make
good feed, much better than corn
sown broadcast. If you would build
a silo and grow corn especially for
silage you could on ten acres of good
land make 100 tons of silage, which
would carry thirty cows through the
winter. You should be able to grow
a crop of Canada peas and oats sown
in March so as to be sufficiently ma-
ture to cut in July and then be fol-
lowed by a crop of millet or Hunga-
rian to cut in September for hay.
Peas of all kinds are good feed for
stock of all kinds, but should not be
fed alone, as they are too rich in pro-
tein. They should be fed with corn
fodder or hay or sorghum, then they
make a balanced ration.—Ed.

SMOKEHOUSE—CURING MEAT.

Will you please in your next issue

Cottage Poultry Yard, LEXINGTON, VA.

SINGLE-COMBED WHITE LEG- HORNS.

A few choice Cockerels for sale. Fine birds
going at from 75c. to \$1.50 each, according
to age. All stock pure bred. Order quick.
Satisfaction guaranteed.

Half Wild Turkeys.

Bred from pure Virginia Wild Turkeys
crossed with Mammoth Bronze; also Pure
Mammoth Bronze, bred from select stock;
large bone, correct plumage. A few S. L.
Wyandotte Cockerels. Prices right.

MRS. O. J. COCKES, Elberon, Va.

WHITE

Holland Turkey Hens, \$2; Toms, \$3; S. C.
Brown and White Leghorn and Buff Rock
Cockerels, \$1 to \$3; Mongolian Pheasants,
\$5 per pair. Get what you pay for or money
back.

LAUREL HILL POULTRY FARM,
R. F. D. No. 1, Roxbury, Va.

White Holland Toms \$3.00.

S. C. White Leghorn Cocks, \$1.00; S. C.
White Leghorn Cockerels, 75c., if taken be-
fore December 1st. G. W. MOSS, Guiney,
Va.

AMERICA'S BEST STRAIN

Barred Plymouth Rocks

AND S. C. B. LEGHORNS.

A limited number for quick buyers. Eggs
for hatching in season.
MRS. A. W. DAVIS, Blanton, Va.

WHITE PLYMOUTH ROCKS. EXCLUSIVELY.

A few Cockerels and Pullets for sale. Eggs
in season.

MRS. F. H. WILKINSON,
R. F. D. 1, Alexandria, Va.

YOUNG STOCK.

A Choice Lot for Sale at Prices to move
them Quick, Buff Orpingtons, Barred Rocks,
also a few Cockerels, in White Orpingtons.
White Rocks and Buff Wyandottes. QUEEN-
LAND FARM, Hagau, Va., R. No. 2 Box 7P.

Barred Plymouth Rocks

The product of ten years' careful breeding.
One of my Cockerels will improve your flock.
L. W. WALSH, Box 245, Lynchburg, Va.

SOME SINGLE COME

BROWN LEGHORN

PULLETS AND COCKERELS FOR SALE.

C. L. LONG, MIDDLETOWN, VA.

BLACK LANGSHANS.

Some choice Cockerels and Pullets, also a
few good yearling Hens now ready to ship.
Get your next season's breeders now at
reasonable prices.

A. M. BLACK, Tazewell, Va.

SINGLE COMB

RHODE ISLAND RED

CHICKENS, \$1 EACH.

JOHN W. MORRIS, Waldrop, Va.

FREE PRICE LIST

STALLIONS, JACKS, POLAND CHINAS,
ANGUS, SHORTHORNS, HEREFORDS,
FOX HOUNDS, BULL DOGS AND POUL-
TRY.

J. D. STODGHILL, Shelbyville, Ky.

REDS.

THE THOROUGHBREDS

The three Reds for sale.

Red Polled Cattle. Red Duroc Jersey Hogs. Rhode Island Red Chickens

The Red Polled Herd is headed by the Royal Blooded Herodotus—weighs over 3,300 pounds and traces his lineage to sturdy Scotland.

The sire of Prince Harriman took first prize of Durocs at St. Louis in 1904. Rhode Island Red Chickens—remarkable for their rich, red coloring, the cocks being magnificent in plumage. The eggs of this breed are large in size, fine color and good flavor. The chicks are all hardy, pullets mature at an early age.

Now ready for market.

Red Polled Bulls. Red Duroc Jersey Hogs, Rhode Island Red Chickens

Write me for prices.—JOHN H. HATFIELD, Harriman, Tenn.

PERCHERONS and

Kentucky Saddlers.

If you want a first-class Percheron of either sex, come to

LYNNWOOD STOCK FARM,

where Stallions can be bought for less than half stock companies are paying. A look at my Horses will convince you that no stable holds a better class of good horses. Some stables can, of course, show a greater number, but none having more size and quality, and Horses that are always ready to work and ones that have had exercise in paddocks and teams.

I will also sell FIVE REGISTERED KENTUCKY SADDLE HORSES, including a bay Stallion four years old by General Miles, son of Black Squirrel, and out of a General Buford mare.

Come and see me.

JOHN F. LEWIS, Proprietor Lynnwood Stock Farm, Lynnwood, Rockingham Co., Va.


I HAVE THE FINEST JACKS IN THE WORLD



and the greatest variety to select from. I will also sell you as good imported horses as ever crossed the ocean at prices from \$700 to \$1000. Write for catalogue.

W. L. DELOW,
Cedar Rapids Jack Farm, Cedar Rapids, Iowa.

Imported Catalana, Marjorio and Kentucky Bred Jacks.



We have the grandest lot of Jacks in our barns ever offered by any firm. Saddle, Trotting and Pacing Stallions, Poland China and Tamworth Hogs. Write for catalogue or come to see us.

J. F. COOK & CO., Lexington, Ky.

give me the best plan for a smokehouse and how to cure meat.

Mas. D. A. ALLEN.

Cabell county, W. Va.
Mr. J. O. Thomas, of Smithfield, Va., the curer of the celebrated Smithfield hams, wrote us in response to an inquiry similar to this one that "a smokehouse to hold the meat of forty hogs, I think, should be 14 feet square and 12 feet pitch—that is, 12 feet from the sills to the top of plates with sharp roof covered with shingles, the building underpinned with brick or stone; the house should be built tight so as to be dark and should be kept clean. Smoke slowly so that the meat will not get warm and smoke two or three weeks, or until the meat is colored to suit. Meat should lay in salt (not brine) from three to five weeks, according to size of meat. Pork should never freeze. Never use lightwood to smoke with."—Ed.

PLANT FOR NAME.

Enclosed you will find a plant. Please let me know what it is; has it any value for grazing purposes and does it improve the soil any? It is taking this county and grows on the poorest land and on good land also. I fear it is a pest. W. A. YEARY.
Lee county, Va.

The plant is Japanese clover. It is one of the legumes and, therefore, an improver of land. It is of some value as pasture in this State. Further south it makes a valuable hay crop. It is an annual, coming late in the spring and dying down on the first appearance of frost. It is spreading all over the Southern States and gradually improving all the land on which it grows. We do not advise it being seeded except upon land not under cultivation, as better clovers and grasses can be grown upon cultivated land which will give much more feed. On wild, turned-out land it will grow and gradually kill out broom-sedge and other noxious growths.—Ed.

BITTER ROT OF THE APPLE.

Will you please give a remedy for bitter rot in apples?

S. H. CRANN.

Rockingham county, Va.
Carefully gather and burn all the dried-up apples to be found on the trees or under them. Then spray frequently with Bordeaux mixture from the spring until late summer. This will keep the disease in control and finally master it.—Ed.

WHEY AND BUTTER MILK FOR HOGS—PERSIMMON BEER.

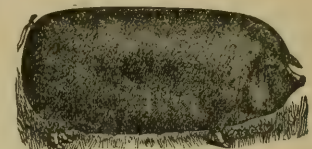
1. What is the value, as food for hogs and chickens, of the whey from cottage cheese?
2. What is the value of butter milk per gallon to hogs fed in a thin slop with chop or fed by itself? Which is the better way?
3. Please give full directions for making persimmon beer; how long



POULTRY SPECIALS.—Now is the time to buy and save money. Read carefully the following and place your orders now:
50 White Wyandotte Hens at \$2 each.
50 White Wyandotte Pullets (some now laying) at \$25 per dozen.
20 White Wyandotte Cockerels at \$2.50 each—also extra quality.

50 S. C. Black Minorcas, Cocks, Cockerels and Pullets and Yearling Hens, all from the best imported and American strains, at \$2 each in dozen lots.

50 R. C. and S. C. Rhode Island Red Male and Female Birds at \$20 per dozen.
White, Buff and Barred Plymouth Rocks; White, Buff and Brown S. C. Leghorns; White and Silver Laced Wyandottes, Silver Spangled Hamburgs, S. C. Buff Orpingtons, Partridge Cochins and many other breeds, and will sell trios of any of above for \$7 if ordered in November. I also still have some of the exhibition birds named below for those who come first.



Special exhibition Offering of a few Breeds for prompt acceptance. Lot No. 1—Silver Wyandotte Cockerels and Pullets from T. E. Orr's Special Prize Winning Matings. Pullets, \$2 to \$4 each, Cockerels \$3 to \$6 each.

Lot. 2—Partridge Wyandotte Pullets from Orr's Prize Winners \$2.50 each.

Lot No. 3—Two Trios of Black Orpingtons, raised from Eggs purchased from the Orpington Originators, Wm. A. Cook & Sons and cost \$1 per egg. Price \$15 trio.

White Holland and Bronze Toms, \$5 and \$6 each; Hens of either breed, \$4 each, or three for \$10 if taken this month. Pekin and Rouen Ducks at \$7.50 trio. Send along your orders and you will be pleased with the birds I send you.

Shropshire Rams nearly all sold; a few choice South-down ram lambs and yearling rams if ordered at once. Bred Ewes, both Southdown and Shropshire, from the leading imported and domestic strains; all registered and first-class.

Chester White, Poland China and Berkshire Pigs, all ages and mated in pairs and trios. I have some extra good service Boars and young Sows, bred and open, that I will sell right if ordered promptly. If you want anything in the pig or hog line write me and I know that I can please you.

I have the following special Hog Bargains: One 300-pound Berkshire Boar, eligible to registry, \$25; one 250-pound Chester White Boar, \$25; 150 to 200-pound Poland China and Berkshire Boars at \$22.50 to \$25 each; two fancy 125-pound young Chester White Sows that will be ready to breed in December, \$17.50 each. If I have not described and priced just what you want write me to-day and I will be glad to furnish particulars. Address JAMES M. HOBBS, No. 1521 Mount Royal Avenue, Baltimore, Md.



Sunnyside Farm BERKSHIRES.

Boars in service, a son of Baron Premier 3d., a son of Manor Faithful out of Her Majesty (Biltmore's greatest Boar and Sow) and a son of the great Masterpiece (paid for and coming). Sows of the very choicest breeding and superb individuality have been selected for mating with these boars. Some beautiful Pigs for sale at reasonable prices. Also

Aberdeen-Angus HEIFERS!

(almost pure) suitable for breeding purposes. No order considered for less than a car load. Herd numbers nearly 300 head.

NO TICKS ON THE FARMS.

W. R. WALKER, OWNER, UNION, S. C.

Meadowview Berkshires

Not "how many" but how good"
OUR MOITO.

Made Clean Sweep at Richmond

WINNING 12 FIRTS, 3 SECONDS, and 2 CHAMPIONS—more than all other Berkshire Exhibitors put together. Any of our Show Stock is for sale and we sell the same kind we show.

Write for our prices.

MEADOWVIEW FARM, R.F.D. 1 Woodbine, Pa.

Millboro' Springs Stock Farm

offers a few pure-bred Berkshire pigs by OLD DOMINION, 77484. Every pig sold is guaranteed to be as represented, or your money refunded. J. GRAHAM DAVIDSON, Mgr., Millboro' Springs, Va.

REGISTERED BERKSHIRES.

We have magnificent imported and American sows in our herd, and on these we are using LONGFELLOW, MASTERPIECE and LOYAL LEE OF FRANCESCO boars. It is our observation that this is the way to produce hogs that will mature early and grow large animals with the proper form. Write for catalogue. HIGHLAND FARMS, W. H. Doris, Prop., Mount Laurel, Va.

BERKSHIRE HOGS.

6 pigs, farrowed May 23rd, 1906, 2 males, 4 females; 1 fine sow 6 mos. old by Lord Chesterfield out of Lady Chesterfield; All pure-bred. Also my Registered boar, Lord and Lady Chesterfield, set 3 years old. Prices low. Write me. J. A. TURPIN, Hallsville, Va.

BERKSHIRE BOARS. I offer some exceedingly choice young boars for sale; by Imported Danesfield Tailor, 76490 and out of Biltmore bred sows. It will be hard to find better or cheaper stock

HENRY WARDEN, Fredericksburg, Va.

Berkshires

About forty (40) pigs for sale, 3 to 12 weeks old, now ready for delivery. All pure Biltmore, blood—Longfellow, King Longfellow and Model Duke, breeding in dam and sired by Mason of Biltmore II., 6884, grandson of Great English Loyal Boar. ROBERT HUBBERT, Strine's Farm, Charlottesville, Va.

must it stand after making before using? Can it be made now before frost or should the fruit be allowed to remain on trees till freezing weather sets in? Should it be left in keg in which made or racked off in bottles before it becomes fit for use?

PERCY IMMONS.

Roa noke county, Va.

1. Eight hundred pounds of whey is equivalent in feeding value to 100 pounds of grain in hog feeding.

2. Four hundred and seventy-five pounds of skim milk is equivalent in feeding value to 100 pounds of grain in hog feeding.

Both milk and whey may be fed with advantage to chickens.

3. We are unable to answer this question. Perhaps some of our friends in Fluvanna or Chesterfield counties, where persimmons are a staple crop, can give the information.—Ed.

TURNIP SALAD FOR HENS.

Will turnip salad prevent hens from laying? Mns. A. L. DAVIS, Dinwiddle county, Va.

No. Any kind of green feed fed during the winter months will have a good effect on egg production. Hens are usually fond of turnip salad and we have fed it freely with good results.—Ed.

LIME BURNING.

I have three heaps of stumps, about 30 feet long and 10 feet high, closely stumps unq of ywaw i qwqwa 'poidj with them. Please tell me the best way to burn them.

SUBSCRIBER.

On page 325 in the October issue you will find advice as to burning lime.—Ed.

LAME HOG.

I have a hog that is lame on three feet, both fore feet and one hind foot; his legs are enlarged at the knee joint; seems very stiff. We have rubbed it with salt water and then with Liniment; hog is in good condition; has been lame for four or five weeks; he eats heartily at all times.

J. H. MELTON.

The hog is, no doubt, suffering from rheumatism. The best thing to do is to make him fat and kill him. No treatment will be satisfactory.—Ed.

FEEDING BONE AND GRIT TO HENS.

How should crushed bone be fed to hens and how often (say to about 80 hens)? Also how to get them to eat broken crockery.

C. W. DARDEN.

Southampton county, Va.

Feed to 80 hens two and a half pounds of crushed bone per week, dividing it into two feeds, to be given on separate days. Feed alone or in mash. If the crockery is broken small enough the hens will soon take to eating it.—Ed.

Poland China Pigs

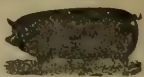
Some fine ones, young sows bred, young boars and pigs, to better breeding in the United States. My herd boars have been sired by J. H. Sanders, Lookmeover. Perfect 1. Know, Proud Perfection, Corrector and High Roller, the greatest prize winners of the breed—my sows have been as carefully selected.

RED POLLED CATTLE. Fine good young bulls. Will sell a few cows and heifers. ARROWHEAD STOCK FARM, Charlottesville, Va. SAM'L E. WOODS, Prop.

POLAND CH NAs.

with the business hams; booking orders for fall pigs. Sired by Teunessah Perfection 2nd, and out of sows sired by S. C.'s U. S. Chief, Irwin, Clinton, Chief, Corrector, Sires Sunshine, Sunshine of Maple Grove. Have for sale two males and one female. Sired by Chief Clinton 2nd, and out of a fancy Sunshine sow. Growth and good individuality. Price right. Satisfaction or money refunded. Write your wants. A. GRAHAM & SONS, Overton, Albemarle Co., Va.

Registered P. China Berkshires C. Whites. Large strain All ages mated not skin. 8 week pigs. Bred sows; Service boars. Gunsey calves. Scotch Collie pups and poultry. Write for prices and free circulars. P. F. HAMILTON, Cochranville, Chester Co. Pa.



REG. POLAND CHINAS AT ROCK-BOTTOM PRICES.

One tried Sow that has proven a good breeder! Two nice gilts, all to be bred for spring farrow; one pair seed Spring Pigs. This is your chance. I can't give you a bargain unless you give me an order. Write at once. W. B. PAYNE, Edgewood Stock Farm, Crofton, Va.

POLAND CHINA and O. I. C. SWINE.

Choice Pigs of both breeds, two to three months, \$4 each; one six-months O. I. C. Male, ready for service, \$12; two four-months P. C. Males, \$7.50 each; two Registered P. C. Sows, bred to registered male. All stock eligible to registry and first class.

ROBINSON & HUTTON, Lexington, Va.

STRICTLY FIRST CLASS

Poland-Chinas.

Sows bred or open; young pigs single or in pairs. Send for circular. C. H. MILLER, R. F. D. 3, Richmond, Va.

Tamworth Pigs

From Registered Stock of Fine BREEDING.

VOLNEY OSBURN Blumont, Loudoun Co., Va.

REDUCTION SALE. Blooded Stock Cheap,

200 DORCHES, 140 SHROPSHIRE, 150 BORTHORNS and POLLED DURNHAMS. White Scotch Collies (All Pedigreed), 250 Plymouth Rocks (White, Buff and Barred). See our Bro. Guide, August Judge at Lynchburg, Va. Fall stock in October. S. R. QUINN & SONS, Newport, Ind.

BARGAINS IN BERKSHIRES

I will sell five Boar Pigs out of Chloe, daughter of Dictator and Queen and by the Duke of Lynwood, farrowed September 23, 1906. Any one of them is good enough to head any herd of Berkshires. In fact, they are as good as any pigs that are sold by Western breeders at from \$25 to \$50.

Registered, crated f. o. b cars, for \$12 a head. Will not take them from the sow before December 1st.

JOHN F. LEWIS, Lynnwood, Va.

STERLING HERD,**Duroc-Jerseys
and Berkshires.**

A lot of 8 weeks pigs ready ab at Nov. 15.

R. W. WATSON, Petersburg, Va.

SPECIAL SALE**Duroc-Jerseys.**

Forty to fifty good Pigs. I guarantee satisfaction to every customer. Write your wants to-day. CLARENCE SHENK, Luray, Va.

SALT POND HERD**Duroc Jerseys.**

The top of 60 head of April, May and June pigs for sale. Sired by PAUL J. (son of Oom Paul) MONARCH and LONGFELLOW. Prices reasonable.

B. A. WHITTAKER, Hopside, Va.

A FEW**Southdown Sheep
and ESSEX MALE PIGS**

also 2 Pure-bred Angus Bulls, one 6 years old, recorded. The other a young bull and eligible to registry. Both fine

L. G. JONES, Tobaccoville, N. C.

Large Yorkshire Boar Pigs

to make herd headers. These pigs are imported and from the greatest prize-winning herd in the world; sire, Summer Hill Roger, 1907, first over all breeds at Toronto, 1905, 1906; dam imported, out of sow from Lord Roseberrys herd.

A-1 YOUNG ANGUS BULLS.

OVERBROOK FARM, 6 and 3 Conway Street, Baltimore, Md.

WHY RAISE DARK SKIN

hogs when whites are—just as easy and look so much nicer. O. I. C. is the hog to raise.

F. S. MICHIE, Rio, Va.

Chester Whites

Best hog on earth. Pigs now ready for delivery at farmers' prices.

S. M. WISECARVER, Rustburg, Va.

KAFFIR CORN AND SORGHUM.

Can Kaffir corn, also sorghum, with well matured seed on be safely fed to horses, and if so, about how much per meal; horses weighing about 1,200 pounds—i. e., for winter rations. Can horses be fed with above exclusively—i. e., without giving them either corn or oats?

Soja Beans.—Are soja beans safe to feed to horses? Some that I have are with leaves mostly gone and balance are O. K. How much is it safe to feed per meal to horses? L.

Charles City county, Va.

Kaffir corn and sorghum have just about the same nutritive value as corn and, therefore, may be fed in the same way as corn. Like corn, they are lacking in protein and could, therefore, be improved as a ration by having some of the soy beans fed with them, but do not feed too heavily with the beans, as they are very rich in protein. One-fourth soy beans and three-fourths Kaffir corn or sorghum should make a good ration fed in about the same weight as corn is usually fed.—Ed.

HOG-RAISING AND FEEDING.

I would like to get THE PLANTER'S advice on some hog questions:

I have a farm of 400 acres ten miles from Washington city and want to raise for that market from one to two hundred pigs a year and do so largely on the grazing plan. I have already 11 acres of very good alfalfa and have recently seeded five more acres. My idea was to have crimson clover and rye together for late winter and early spring grazing and then rape, alfalfa and cow peas and sorghum. I expect, of course, to feed a grain ration while pasturing. I would like your idea on the above plan.

Now as to breeds. I have eight thoroughbred Berkshire sows and a Berkshire boar and several grade sows that are about three-fourths of above breed. Last January I bred two young Berkshire sows to a very fine O. I. C. boar of a neighbor's and as a result got two fine litters of pigs that have, so far, outgrown my pure Berkshires of same age.

What I want is a quick-growing pig, and would like to know if I should stick to thoroughbred Berkshires or cross with O. I. C.'s or Yorkshires. Would it be advisable to turn out some of the sow pigs for breeding from the two litters of Berkshire-O. I. C. cross above mentioned, and if so, should I breed them to a Berkshire or O. I. C. boar when they attain the proper size? The Washington market calls for pigs from 125 to 150 pounds.

I raise about 20 acres of Irish potatoes each year, about 65 of corn and have about 12 acres of apple orchard and about three acres of peaches, nearly all of which are accessible to hogs. In addition I raise about two

**College of Agriculture
and Experiment Station.****BLACKSBURG, - VIRGINIA.**

JERSEYS—The herd bull is offered to avoid inbreeding; pedigree below. His helpers are just beginning to come into milk. A partial record of one or two can be given.

Golden Lover's Trevath 61133 Calved Mar. 10, 1901.	Golden Love { Golden Lad True Love	Golden Love { Golden Lad True Love
	Blittmore Butterfly	Trevath Butterfly Clifton II.

SHORTHORNS—Bull calves, helpers and mature calves offered.

BERKSHIRES—Orders for fall pigs can be taken. Pigs of both sex and pairs not akin.

For further information apply to JOHN R. FAIN, Agriculturist.

DORSET SHEEP

We purchased at the World's Fair, at St. Louis, a ram that was second at this show. We now have some of his lambs, and they are the best that we ever raised—as good as we ever saw. There are flock headers among them that would please the most exacting.

J. B. WING & BROS., Mechanicsburg, O.

EDGEWOOD STOCK FARM.

Dorsets all sold again. We just can't keep enough for our Virginia lamb raisers. More lambs on deck in November, so you must get your orders in on time this year.

J. D. ARBUCKLE & SONS, Maxwellton, W. Va.

DEVON HERD. HAMPSHIREDOWN FLOCK
ESTABLISHED 1884. ESTABLISHED 1890.

DEVON CATTLE**BULLS AND HEIFERS,****Hampshire Down Sheep,****HAMS AND EWES.**

ROBT. J. FARRER, Orange, Va.

3 PURE-BRED**ANGORA BUCKS**

for sale; price reasonable. J. L. GRAY, New-wood, Va.

2 FINE**ANGORA BUCKS**

for sale to avoid inbreeding. WALTER G. NOELL, Danville, Va.

THOROUGHBRED**Berkshire Boars,
Jersey Bull Calves,
Dorset Buck Lambs.**

Sire of Calves, FLYING FOX 6566, son of Flying Fox who sold for \$7,500 at the Cooper sale 1902.

All stock in best of condition and guaranteed as represented.

F. T. ENGLISH, Centerville, Md.

Mention The Southern Planter.

Willow Glen Short Horns

Herd headed by Prince Albert, 206212, second prize Junior Bull Calf at the Chicago International, 1903.

My show herd, with thirteen entries at the Virginia State Fair, won twelve first (including three championships) and five second prizes. Amount of premiums eight hundred and fourteen dollars (\$814.00).

For sale, some fine Young Cows and Heifers, and also a nice lot of Young Bulls ready for service.

Write me what you want or come and see my herd.

DR. D. M. KIPPS, Front Royal, Va.

SHORT HORNS

RED CLOUD, first prize, 2-year-old, in class of six at State Fair, 1906.

NOMINEE, grand champion over all breeds in United States and Canada.

BEST GOODS, the image of his sire, CHOICE GOODS, sweepstakes at World's Fair, and out of a Marr Bessie, and

IMP. LANCASTER FAME.

What herd, North or South, can lead out four bulls their equal?

Duchess of Gloster, Victoria, Rose of Swallowtail, Bythesome and Secret families—the best Scotch blood in brood cows.

BURKE'S GARDEN CATTLE CO., Burke's Garden, Va.

Springwood Short Horns.

We have some good Cows with bull calves at foot; a nice Roan Bull weighing 1,300 pounds.

We also offer "Herman," the GERMAN COACH BAY STALLION, weighing 1,500 pounds. A look at some of his colts will convince any one of his breeding.

We also have a fine lot of all Pigs and couple Bred Cows—Poland China, Good or write J. F. Camper and Louisa E. Thrasher, administrators William T. Thrasher, deceased, Springwood, Va.

ELLERSLIE FARM—

Thoroughbred Horses

AND SHORTHORN CATTLE,

Pure Southdown Sheep

and Berkshire Pigs.

FOR SALE, R. J. HANCOCK & SON, CHARLOTTESVILLE, VA.

SHORTHORNS.

One cow, one yearling heifer, one yearling bull and three Bull calves for sale at bargain prices.

2 Year Old Colt

by Supremacy, out of well bred mare; \$125 buys him. He's the handsomest in the State. R. L. LEACH, Front Royal, Va.

RED POLL CATTLE.

Edgewood Stock Farm still offers choice RED POLL BULL CALVES. Breeding, Rufus, Majollioli and Breadfinner. Fine reports from our shipments to Old North State farmers. They say Red Poll is the thing for them—hardy, beautiful, no horns, good milkers—the farmer's cow.

J. D. ARBUCKLE, Maxwelton, W. Va.

Mention The Southern Planter.

or three tons of field pumpkins and turnips per year.

I have a large boiler and feed, cooked, unsalable potatoes to my hogs. I usually have an abundance of red clover and alsike pasture. I would like to have THE PLANTER'S advice on above plans. Very respectfully,

WILLIAM F. HOLMEAD.

Your proposed method of raising and feeding hogs ought to be very profitable and successful. You have the right crops growing upon which to build up a good herd and if you supplement these as you propose, should have no difficulty, with the aid of a small corn ration in making just the pigs called for by your market. In this issue you will find a reply given to another enquirer setting out the different crops which can be so sown and utilized as to practically give grazing for hogs the year round. There are two other crops which you do not mention which we think you should also grow for the hogs. These are soy beans partly for a grazing crop and partly for the seed crop and artichokes for a winter root crop. The soy beans make probably the most valuable grazing crop for hogs which can be grown, as they are so rich in protein, which, as you know, makes the lean meat, and the dried grain will, if fed in the proportion of one-third with corn, make the corn do much more effective service.

In this issue you will find further information as to this crop in our article on "Work for the Month" and in another article dealing with the saving of the crop. The artichokes you will also find excellent for winter grazing, as the hogs will root them out for themselves and do well on them.

As to the breed to be raised. We personally have the greatest confidence in pure-bred Berkshires as paying hogs. The Yorkshires also are an excellent breed for making lean meat hogs, but we doubt whether they are as good grazers as Berkshires. They make a first-class pen hog—nothing better. The O. I. C.'s we regard as too large for your purpose, though they are excellent hogs.

As to cross-breeding. A cross between two pure breeds will sometimes result in an excellent grade hog, but this is a pure accident. Nothing can be predicted with certainty as to what the outcome will be, as the propensity of pure-bred animals is great, and sometimes one type and sometimes the other, preponderates in the offspring. However, you may experiment in this direction; never go further than to interbreed the pure-bred animals. Whenever you interbreed the grades you never know what the result will be. Sometimes they will revert to a remote ancestor of a most undesirable type and they never make a herd of equal size and quality, which always commands a better average price than a nonde-

Cottage Valley

Offerings

Several 15-16 GRADE ANGUS Bull Calves ready for service—will make fine bulls for grading up a herd.

A fine lot of thoroughbred O. I. C. pigs, both sexes at reasonable prices.

BULL CALVES out of Shorthorn Cows, by Angus Bull.

Several registered Angus bull and heifer calves.

B. L. Wyandotte Eggs, \$1 for 15.

Five Llewellyn Setts: Pups of just right age to be broken in this fall; color tan and white; price \$6 each.

Several fine family Milch cows young, gentle and fresh to the pail. W. M. WATKINS & SONS, Saxe, Va.

Do You Like To Make Money?

If you are a farmer, one way to make money is to get a pure-bred Bull to produce the kind of calves that sell at good prices. Any of the beef breeds will do you lots of good, but you had better try a sure thing and get a GALLOWAY. They are as good as any and hardiest of all; thrive where others fail; make beef, cream and finest of robes. Calves from a Galloway Bull from any sort of cows will be all black, hornless and of the true beef type. What more do you want?

I have Bulls of all ages for sale at \$35 to \$500 each.

N. S. HOPKINS, Gloucester, Va.

THE GROVE FARM GUERNSEYS.

First prize Herd at Timonium and Hagerstown, Md. Only places herd shown.

BULLS ONLY FOR SALE.

OUR BERKSHIRES

Were unbeaten at Timonium and Hagerstown and York, Pa., only places shown in 1905.

PIGS, BOTH SEXES FOR SALE.

AS. McK. MERRYMAN, R. F. D., Cockeysville, Md. P. Telephone and Telegraph, Lutherville, Md.

REGISTERED

Holstein-Friesian

Cattle; best butter producing strains; pure-bred JERSEY CATTLE, CHESTER WHITE, SHROPSHIRE, JERSEY RED HOGS, and all the LEADING BREEDS OF SHEEP, also DUCKS, POULTRY and TURKEYS.

Write for my prices.

V. R. SELLECK, Huntington Harbor, L. I.

FOR SALE AT LOW PRICES.

Reg. Hereford Bull, 7 months old, splendid individual of excellent breeding, large and well marked.

Grade Hereford Heifers and Cows in fine shape.

SEED WHEAT, Red Wonder and Bearded Fulcrater, in excellent order. For prices apply to WM. C. STUBBS, Valley Front, Farm, Sassafras, Va.

FARQUHAR

Pea Huller, No. 1



Our latest machine, with improved drive cylinder, hulls and cleans all kinds of peas and beans without breaking or cracking. Substantially built and nicely finished. Just what every farmer who raises peas and beans needs. Will more than save the cost in one season. Write for circular and prices.

also Catalog of Engines, Boilers, Saw Mills and Threshers, free for the asking.

A. B. FARQUHAR CO., Ltd., York, Pa.

ROSE DALE HERD...

Aberdeen Angus

Top notch young registered Bulls on special. A few heifers to offer with bull not skin. We send out none but good individuals. Correspondence and inspection of herd invited. ROSE DALE STOCK FARMS Jefferson, Va.

Edgewood Stock Farm, ABERDEEN-ANGUS CATTLE.

A nice lot of Angus cattle, as good as any in the State, for sale at reasonable prices. J. A. HARDY, R. F. D. No. 1, Blackstone, Va.

Walnut Hill Herd Aberdeen Angus Cattle

Calves, 3 months old and up, for sale.

J. P. THOMPSON, Prop., Orange, Va.

REGISTERED Hereford Bull

Calves for sale; \$50 each. J. L. PITTS, Mountain View Stock Farm, Scottsville, Va.

JERSEY BULL

for sale. Price, \$30, f. o. b. cars. Dropped January 30, 1904. By Sir Rocky Marjoram, 57996; dam, Alteration's M, 165202.

E. E. ENGLAND, CULPEPER, VA.

2 HIGH BRED

REG. JERSEY BULLS

1 and 2½ years old, for sale; also a few nice cows. Nice lot of S. C. B. Leghorn pullets and a few choice 1 year hens. RIVER VIEW DAIRY FARM, C. M. Bass, Prop., Rice Depot, Va.

FANCY-BRED

JERSEY BULL

for sale. Sire, Rhinora's Rioter of St. Lambert, 69478, whose granddam on both sides gave 320 pounds milk and nearly 24 pounds butter in seven days; dam, Primrose of Evergreen, 187695, 12 years old, gave 240 pounds milk, testing 6½ per cent. fat, making about 18 pounds butter in seven days—on pasture alone.

W. B. GATES, Evergreen Farms, Rice Depot, Va.

script lot—some large and some small, some showing fine quality and some a coarse type.—Ed.

CORN STORING.

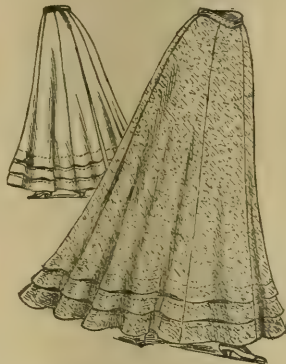
How long will corn, on the ear, keep? Does it keep better shucked or not? I have some left over—indeed, quite a lot—and will move it from my crib and put this year's crop in.

NEW HAND.

Henrico county, Va.

Corn will keep for years if thoroughly dry when stored properly in a dry, well-ventilated crib out of doors, but if taken out of the crib and stored in a barn or granary will usually be attacked by weevil, especially if shucked. It is seldom injured by the weevil so long as it remains unshucked. When compelled to remove it from the crib it should be shelled and stored in tight bins and be treated with bisulphide of carbon at once, so as to remove all danger of loss from weevil, the moth of which may have laid eggs on it in the crib.—Ed.

HINTS BY MAY MANTON.



5492 Seven Gored Walking Skirt,
22 to 32 waist.

The skirt that is trusted at its lower edge is always a desirable one, as it is quite certain to give most satisfactory lines and folds. This one is made of a pretty novelty wool material stitched with belding silk, the color being blue, but it will be found available for everything that is of sufficiently light weight to make the tucks desirable. Veilings, cashmeres and the like are to be greatly worn and all are pretty made in this way, while also all the soft, fashionable silks are appropriate.

The skirt is cut in seven gores, all of which are joined before the hem is turned and the tucks are stitched. The fullness at the back is laid in inverted plaits that can be stitched or pressed into position.

The quantity of material required for the medium size is 11 yards 27, 61-4 yards 44 or 52 inches wide.

HEREFORDS.

In talking up Herefords, I am not talking down any other Beef Breed—each has some special point of merit. But I contend that the Hereford has MORE valuable characteristics adaptable to this section than any other beef breed—rugged and hardy of constitution, thrifty and industrious, they earn their own living on the thin pastures and brushy hillsides, laying on beautiful marbled beef at the same time. Naturally docile, they are easily handled, which means a great saving in labor and fences. But one of their strongest points is prepotency. A pure-bred bull bred to any native cow will produce a "white-face" veal that will sell for \$15 to \$18—the kind that is eagerly sought after by the butcher. It is simple arithmetic to figure how many veals it will take to pay for your bull.



The Castalia Herd has some of the best blood of the breed. Here you will find individuals of the finest type—service bulls, breeding cows, young stock of both sexes, all in fine working shape. Come and see them. I am in fine humor for talking foundation stock. If you have the slightest idea of starting a small herd it will be most decidedly to your interest to let me know it. I will meet you at the station any day you say. Don't fail to come and see the stock. It will talk better than I can in an advertisement.

Murray Boocock,

"Castalia," Keswick, Albemarle County, Va.

"Stunted lamp-light"—smoky chimney, poor draught, imperfect fit, cracking chimney, clouded glass—why do people put up with this when good lamp-light is the best light to read by?

I make and put my name—MACBETH—on lamp-chimneys that are clear as crystal, never break from heat, and fit perfectly.

MACBETH lamp-chimneys give lamps new life.

Let me send you my Index to tell you how to get the right chimney for your lamp; it's free.

Address, MACBETH, Pittsburgh.

Orchilla Guano AND Swift's Bone Fertilizers

Conceded the best Fertilizers for Grass and Grain crops

Write for prices.

Diggs & Beadles,
SEED MERCHANTS,
Richmond, Va.

GOOD HORSES CHEAP.

One pair of horse mules, 10 and 12 years old, weight about 1,000 lbs. each, a good, strong reliable farm team. Price \$300.

One 7-year-old Brown Gelding, weight about 1,000 pounds; blocky and finely shaped; a good worker and rides well.

One 8-year-old Bay Gelding, weight about 1,150 or 1,200 pounds; a superb saddle horse with all the gait.

One 8 year old bay gelding, 1,050 lbs., rides and works well.

One chestnut mare, 7 years old, a good buggy horse and superior riding animal.

One deep sorrel mare, 3 years old, weight 950 lbs., well shaped, rides and drives well.

W. M. WATKINS & SONS, Saxe, Va.

Hackney Stallion

WELL BROKEN TO DRIVE AND RIDE AND GOOD ACTOR; SOUND IN EVERY RESPECT; DARK MAHOGANY BAY; WILL BE SOLD CHEAP IF TAKEN AT ONCE.

ADDRESS DR. H. H. LEE, R. F. D. 4,
LEXINGTON, VA.

when material has figure or nap; 8 1-2 yards 27, 4 yards 44 or 3 3-4 yards 52 inches wide when it has not.

The pattern, 5492, is cut in sizes for a 22, 24, 26, 28, 30 and 32 inch waist measure.



5470 Square Yoke Work Apron,
32 to 42 bust.

To be Made with Full Length or Three-Quarter Sleeves Cuffs or Bands and with High or Square Neck.

The apron that is genuinely protective is the one that the busy woman really needs. Here is a model that suits the housewife, artist and all others who are employed in active pursuits equally well. As illustrated it is made with full sleeves that are finished with deep cuffs and with high neck, but the sleeves can be extended to the wrists and finished with bands or can be cut off in three-quarter length, while, if liked, the yoke can be cut to form a slightly open square at the neck, so that there are a number of variations provided in the one design. Percale, gingham, chambray and the like are all appropriate, but the sturdiest and perhaps the best liked material of all for aprons of this sort is the butcher's linen that will withstand almost any usage.

The apron is made with the yoke, which is cut in two portions, front and backs. It is gathered at the upper edge and joined to the plain yoke, which can be finished with a collar or cut to form the open square that is under-faced at its upper edge.

.. REGISTERED ..

PERCHERON MARES

WITH FOAL.
FOR SALE.

Colts will almost pay for Mares.

LYNNWOOD STOCK FARM,

OHN F. LEWIS, Prop.

LYNNWOOD, VA.

You Want a Stallion

Then It's a French Coacher, of Course!

Write me for prices and plan. I represent the Sedgely Farm of Hinsdale, Ill., largest importers and breeders in America. Best Stock. Prices right.

Intrepide by champion Indre, 1st stud.

Also breeding, Registered, Jersey Cattle Duroc Jersey swine, B. P. R. Fowls.

Selling April 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 1906. Sharpless Separators.

Wm. G. Owens,
Midlothian, Va.

Chantilly Farm

OFFERS FOR SALE

Four-year-old Saddle Stallion by Chester Dare, No. 10, winner of first in 4-year-old class and champion at Virginia State Fair, 1906.

One-year-old Saddle Stallion by Kentucky Artist 1455.

One-year-old Harness Mare by Red Leaf, the greatest harness stallion in Central Kentucky.

For full description and price address
HIGGINBOTHAM BROS., Fairfax Va.

PURE BRED

Percheron Stallions

Mares and Fillies for sale at all times.
C. A. ALEXANDER & Co., Harrison, Augusta Co., Va.

The quantity of material required for the medium size is 9 1-4 yards 27 or 7 yards 36 inches wide.

The pattern, 5470, is cut in sizes for a 32, 34, 36, 38, 40 and 42 inch bust measure.

clear as crystal.

We can supply these patterns at 10 cents each.

SOUTHERN PLANTER,
Richmond, Va.

Boston, Feb., 10, 1906.

Dr. S. A. Tuttle:

I have used Tuttle's Elixir with great success in the case of a splint, and I cannot speak too highly of that remedy for that one thing alone. I saw your ad in the Practical Farmer and I thought I would try it, and found it just what I wanted. Please send me your 100-page book called Veterinary Experience, and oblige,
J. S. GLASGOW, New Pittsburg, O.

WANT ADS.

Rate 1 cent per word. Cash with order. Initials and figures count as one word. 25 cents minimum charge.

TRUSTEE SALE-ON BEHALF OF NATIONAL Bank of Orange, Va. twenty-seven fashionably-bred Jersey Cattle, all registered but four, St. Lambert blood strongly predominant, with Fianciner and Golden Lad infusion in younger members; butter records referred to U. S. Animal Industry Report, page 122. A very superior young Bull, bred by William Dupont, Sen., sire and dam's sire straight from the Islands. November 14, 1906, at Montclair Farm, near Orange, Va., we will sell the above High-Class Herd, and bespeak the attention of all wishing to buy well-bred and well-performing High-Class Jerseys. The foundation of this herd traces back largely to the well-known stock of Capt. M. B. Rowe. A complete up-to-date dairy outfit will also be offered. Macon & Co., Orange, Va.

FARM MANAGER-A HIGH-CLASS MAN of wide experience, solicits position in the South after January 1st; understand Southern conditions. At present I am manager of famous Northern breeding farm. My record and references assure satisfaction. Address Wallace Kirkpatrick, Savage, Minn.

FOR SALE-TWO ALL-AROUND SERVICE-BLE Brood Mares in foal to Jack, Sunlight, owned by W. H. Clements, Manchester, Va.; also two 20-month-old Horse Colts, well grown for age, and one 3-year-old Poland China Brood Sow, in pig to Berkshire, weighing 275 or 300 pounds. J. A. Spears, Dry Bridge, Va.

WANTED-TO RENT FOR A TERM OF years a good general agricultural and stock farm, equipped with up-to-date machinery and stock; the Piedmont section preferred; best letters and references exchanged. R. B. Leatherman, 99 North Stewart Street, Winchester, Va.

A NICE FARM OF 225 ACRES ON JAMES River below Richmond for sale; land in fine condition; would make a splendid Dairy farm. Trolley line near the place. For information write to J. R. Land, R. F. D. 1, Manchester, Va.

WANTED-A COMPETENT FARMER, ONE who understands grain and grass raising, the use of farm machinery and care of stock; a working farmer and simple. Side wages desired and give reference. Address Farm, P. O. Box 565, Norfolk, Va.

HOLSTEIN-FRIESIAN CATTLE FOR SALE Cows, yearlings, calves and Young Bulls of the most fashionable breeding. Choice English Berkshires, Barred Plymouth ROCKS. Fassitt Bros., Sylmar, Md.

WANT TO BUY A FLOCK OF REGISTERED Shrophires; will exchange registered Berkshires for same; also would like to exchange registered Berkshires for Hereford cattle (registered). Write, giving, description, weight, ages, prices, etc. H. R. Graham, Chestertown, Md.

IF YOU HAVE ANY GOOD REGISTERED Shrophire sheep, Hereford cattle or Poland China hogs that you want to exchange for choice registered Berkshires, write me with description, ages, prices, etc. H. R. Graham, Chestertown, Md.

WANTED-All farmers to write to P. J. Wrenn, R. F. D. 4, Disputanta, Va., for lowest club rate on Southern Planter and Chattanooga Weekly Times.

WANTED-AS WORKING FOREMAN, MAR- ried man. Box 195, Charlottesville, Va.

WANTED-RED POLL COWS AND BULL; also Duroc-Jersey Sows and Boar. Address, with description and prices, A. F. Dresel, R. F. D. 1, Nelson, Va.

FOR SALE-ONE FINE JACK, ONE FINE Jennet with Jack Colt at side; also Jersey Heifers and Bull Calves and Cows with Calf by a double grandson of Golden Lad through a 20-pound daughter. W. A. Thompson, Rutherfordton, N. C.

WANTED-TO BUY SOUTHERN FARM; must be desirable and a bargain; have good Canadian and Minnesota farm to give in exchange. Frederick Warren, 724 Eighteenth Street, Minneapolis, Minn.

BARGAIN SALE-THIRTY CHOICE S. C. Buff Orpington Cockerels, \$1 to \$2; Cocks, \$2 to \$3; Hens, \$1. G. W. Hardy, Jeffress, Va.

BARGAIN SALE-THIRTY CHOICE S. C. Buff Orpington Cockerels, \$1 to \$2; Cocks, \$2 to \$3; Hens, \$1.50 to \$2. N. B. Crudup, Jeffress, Va.

WANTED-YOUNG MAN TO HELP ON farm of twenty-six acres. O. D. Belding, Claremont, Va.

WILL EXCHANGE DWELLING, WITH outbuildings and one acre of land, for a farm; rented at present as a store and doing good paying business in a growing town. P. H. Stone, Virginia Beach, Va.

FOR SALE-DOZEN PURE-BRED S. C. White Leghorn Cockerels, six months old, fine laying strain; one Plymouth Rock, one year old, splendid fellow, \$1.50 each. Miss Dupuy, Balham, Va.

YOUNG MAMMOTH BRONZE TURKEY Toms for sale at \$3 each. D. J. Lybrook, Banner Elk, N. C.

FOR SALE-DESIRABLE SMALL DAIRY Farm earning \$100 per month; ten minutes drive from station on Southern Railway, near Washington. Box 40, Ashburn, Va.

ONE PAIR ANGORA GOATS FOR SALE, fine ones. JAS. POULSEN, Williamsburg, Va.

PURE NARRAGANSETT TURKEYS FOR sale during November only. Toms, \$3; trios, \$6.50; mature early; gentle; best for Thanksgiving market. Dr. Walter Stuart, Farmville, Va.

THREE NEW McSHERRY GRAIN DRILLS for sale; the lot for \$75; worth about \$200. Clarence Cosby, Richmond, Va.

REGISTERED LARGE IMPROVED YORK- shire Shoats, three months old, \$10 each; fine, growly lot; order quick. W. E. Stickley, Strasburg, Va.

FARM FOR SALE, OR WILL EXCHANGE for any established business. Box 16, Route 1, Nelson, Va.

REGISTERED LARGE YORKSHIRES-A choice lot of Pigs ready to wean; boars ready for service; sows bred and ready to breed; prices low to reduce stock. J. D. Thomas, Round Hill, Va.

WANTED-PARTNER TO ENGAGE IN poultry business: I have farm well equipped. Box 196, Charlottesville, Va.

WANTED-GENTLEMAN WITH WELL- stocked farm desires practical working partner with some capital to engage in cattle raising. Box 196, Charlottesville, Va.

WANTED-AN HONEST WHITE MAN to work farm in Piedmont section; references required. B. D. Chandler, Lee Hall, Va.

CHOICE RHODE ISLAND RED AND White Wyandotte Cockerels; \$1 each. John Stone, Louisa, Va.

COCKERELS FOR SALE-BARRED ROCKS. White Wyandottes, S. C. White and Brown Leghorns. Stroud & Walker, Florida, Va.

BUFF COCHIN BANTAMS FOR SALE AT 75c. to \$1 each. H. M. Shenk, Denbigh, Va.

REGISTERED BERKSHIRE SOW, LEE Girl, 55778, for sale or exchange. W. S. Mott, Dixdonale, Va.

WANTED-FIVE DORSET EWES BRED to lamb in the spring; give age. R. K. Cassell, Wytheville, Va.

BERKSHIRE PIGS FOR SALE-PRICE, \$5; all registered stock; no kin. L. B. Johnson, R. F. D. 4, Charlottesville, Va.

WANTED-A PAIR OF BEAGLE HOUND Pups, aged six months or more. D. L. Robertson, Marmaduke, N. C.

PURE-BRED SILVER LACED WYAND- otte Cockerels for sale; \$1.50 each. Miss L. V. Phaup, Pikiton, Powhatan county, Va.

CUSTOMERS REPEAT THE ORDER.

Traverse City, Mich., March 14, 1906.
The Lawrence-Williams Co. Cleveland, O.

Please send us your pictures of famous horses for advertising your Gombault's Caustic Balsam. We sell considerable and customers repeat the order.

JOHNSON DRUG CO.

Nash Co., N. C., Aug. 29, 1906.
I think there is no other journal in the South that furnishes as much pure agricultural knowledge and sound information to the general farmers as THE SOUTHERN PLANTER, and for this reason I am a life subscriber to it.

J. M. BRASWELL.



NOW IS JUST THE TIME TO BUY THAT NEW BUGGY

In the Fall of the year, after the hard Summer's work is over, the weather settled, and the roads are usually good, it's a fine time to have a new buggy.

The Ohio Carriage Manufacturing Company of Cincinnati, Ohio, manufacturers of the celebrated Split Hickory vehicles, say that you will be surprised to know what a splendid Fall business they have on their made-to-order Split Hickory vehicles.

They say that a few years ago they did not receive many Fall orders, but that now people have commenced to realize that the Fall of the year is a fine time to get in their new buggy, on account of the good roads, and the fact that people seem to use buggies later in the season than they used to.

The Ohio Carriage Manufacturing Company is one of the largest manufacturers of high-grade vehicles in the country, and they sell the product of their entire factories direct to users by mail. They issue a fine catalogue, and their prices or vehicles, quality considered, are very low. If you think you would like to have a nice new buggy this Fall, why not write to the Ohio Carriage Manufacturing Company now, and get their free catalogue at once? If you have never seen it, you will be surprised to know what a fine buggy book this concern issues, how reasonable their prices are, and how liberal their methods of doing business. Their address is the OHIO CARRIAGE MFG. COMPANY, Station 234 Cincinnati, O.

GOOD HOUSEKEEPING.

BEATEN BISCUIT WITHOUT ANY BEATING.

With a great many of us, the idea of beaten biscuit suggests only the heavy pestle and continued exertion, but they are not absolutely necessary, although they produce very good effects.

To one quart of flour add two table-spoons of lard and about a cup of milk and a teaspoon of salt. Rub the lard into the flour and mix with the milk. It should be stiff. Now, instead of beating work it with all your might until the dough is smooth and shows little blisters on the surface; roll a quarter of an inch thick and cut with a cutter, bake slowly. I generally add half teaspoon of baking powders to mine; it seems to make them lighter.

SCALLOPED OYSTERS.

This is a little bit different from the ordinary way of scalloping oysters and is very nice. Slice stale bread and toast it nicely on both sides, butter generously and line your pudding dish with these slices; pour your oysters into this, season with pepper, salt and a very little onion juice, with mace or cloves in small quantity. Do not use a great deal of the oyster liquor. Sprinkle a layer of bread crumbs over the top and put butter about on it. Bake for about twenty minutes.

OYSTER FRITTERS.

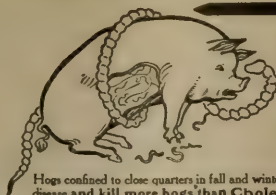
Make a thick batter with two eggs, a cup of milk and as much fine bread crumbs and flour in equal parts to thicken; season well with pepper and salt and beat a few minutes; have a pan on the stove half full of butter and lard, when it is boiling hot drop a tablespoon of the mixture in and at once place on top of it one large oyster or two small ones, let them brown and turn carefully. Take out with a strainer and serve very hot.

OYSTER PIE.

Make a very rich puff pastry and line your baking dish with it; season two quarters of oysters with pepper and salt and a dash of cayenne, add a cup of butter and a heaping cup of fine bread crumbs and put all together in the dish, cover with the paste. A pretty way is to cut the paste in strips and make a lattice of it. It takes nearly three-quarters of an hour to bake this pie and if the crust gets too brown put a fold of writing paper over it, and if it looks dry, just before serving add a little of the liquor boiled and seasoned.

STEWED SALSIFY.

Scrape the roots of the salsify and drop them into cold water for an hour, cut them in slices and boil them gently in water to cover till they are tender, then drain off the water and add milk, butter, pepper and salt; cream a tablespoon of flour with the butter before adding. Let it all come to a boil and serve with slices of toasted bread.



Hogs confined to close quarters in fall and winter are often troubled with worms. Worms are a forerunner of disease and kill more hogs than Cholera, and are often mistaken for cholera.

CLEAN OUT THE WORMS!

PRUSSIAN HOG-WORM POWDERS

are for hog worms only. They remove all worms from hogs. Worms stop Growth. Prussian Hog Worm Powders clean out the worms, strengthen the system, start rapid growth and make hogs thrive. Price 75c per package, 25lb. pails \$4.50 freight paid.

Your Horses, Cattle, Hogs and Sheep should have

PRUSSIAN STOCK FOOD

mixed in their feed. It purifies the blood, aids digestion, sharpens the appetite and puts all the stock in healthy, thriving condition and prevents worms.

Ask dealer about **PRUSSIAN POULTRY FOOD**, it produces more eggs, Cures Cholera, Prussian Lice Killer and Lice Powder to kill lice and mites.

Prussian Cough and Distemper Cure cures Cough, Distemper, etc.

Write how many stock you have and ask how to get 164-page Manual **FREE**.

PRUSSIAN REMEDY CO., St. Paul, Minn.

BERKSHIRE BARGAINS



FOR QUICK SALE. PIGS Sired BY
BARON PREMIER 5527

and out of strong, vigorous sows, \$10 each; one 6-months-old Boar, \$20; 11-months-old Bred Sow, \$25.

Most dealers get double the above price for same blood line. Order at once and get first choice.

N. B.—All the above closely related to World's Fair winners.

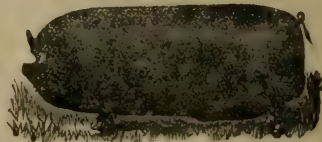
PHIL. H. GOLD, Winchester, Va.

Fancy Berkshire Pigs

from directly imported sows and boars practically imported blood for you at one-third usual price for such breeding; half imported and half American breeding at pocket-change prices—just a little money order no bank account needed for these. Extra fine open and bred gilts

PEKIN DUCKS and EGGS for sale. S. C. Brown Leghorn

eggs cheap. Barred Plymouth Rock eggs cheap. Absolutely pure—all of them. Thomas S. White,



Sir John Bull.

Fastern Stock and Poultry Farm.

Lexington, Va.

FOREST HOME FARM

Offers For Sale

Berkshire Boars

as follows:

Yearling Boars from Imported Animals.

1, 10 Months Old Boar. FINE.

6, 8 Months Old Boar Pigs.

Also a large number of pigs of both sexes. Write

FOREST HOME FARM

PURCELLVILLE, VIRGINIA.



BAKED APPLES.

Wash the apples and carefully cut out any speckled places; quarter them and remove the core, do not peel; put them into a deep baking pan with layers of sugar between and on top dabs of butter; bake slowly until the apples are clear. Serve either hot or cold with cream.

PERFEOT YEAST.

Buy one yeast cake and put into a glass of water to soften for two hours before using; grate one dozen medium sized potatoes and add one gallon of water to them, boil till the potatoes are clear; take them off and add a cup of sugar and a cup of salt and when it is cold add the yeast cake crumbled in the water it has soaked in; put the yeast into a tin bucket and set it in a warm place overnight and it will be ready for your bread the next morning. One cup of this to two quarts of flour is the right proportion.

OLD-TIME POUND CAKE.

Wash a pound of butter and cream it with a pound of sugar until it is very light; sift a pound of flour twice; beat the whites and yolks of ten eggs separately, add alternately the butter and sugar and eggs and flour and when they are all in beat very hard until the cake looks light; some grated lemon peel, a nutmeg and a half a glass of brandy will season it; bake slowly for an hour in a loaf and when nearly cold ice it with icing seasoned with rosewater.

CUP CAKE.

Take four cups of flour, three of sugar, one cup of melted butter, a cup of sour cream and a level teaspoon of soda, season with brandy and nutmeg and bake in a loaf.

APPLE FLOAT.

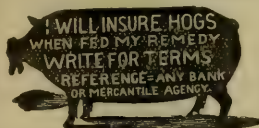
Select large, sound apples and bake them until perfectly tender; scoop out all the pulp, avoiding the core, seed and skin. To a quart of this add a cup of sugar, or more, if the apples are acid; season with lemon extract or grated peel and just before serving add the whites of three eggs beaten very light. Serve with tea cakes made with the yolks of the eggs.

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30 YEARS' SUCCESS**Counts for Something****SUCH IS THE RECORD OF****Dr. Jos. Haas' Hog Remedy****THE GREATEST FLESH PRODUCER KNOWN**

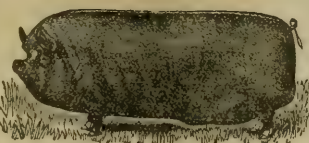
Arrests Disease, Destroys Worms, Regulates Bowels, Saves Feed. GUARANTEED by the INSURANCE PROPOSITION. Write for plan—fully explained in his book, "HOGGOLGY," sent FREE for the asking.



PRICES—25-lb cans, \$12.50, express paid; half cans, \$6.50, express paid; packages, \$2.50, \$1.25 and 50 cents each. None genuine without my signature.

JOS. HAAS, V. S., Indianapolis, Ind.**30 DAYS' FREE TRIAL OFFER**

Any reader of this paper remitting direct to me for a can or half can of my Remedy at prices below and will give same a fair trial for 30 days will have his money refunded if at the end of that time he is not satisfied that his hogs have been benefited, that the Remedy will do all that is claimed for it and that it is the best Hog Remedy he has ever used.

KENILWORTH HERD**IMPORTED ROYAL CARLYLE.**

Headed by the Imported Bear, Royal Carlyle, winner of the first over all classes at the Royal Show of England, and the highest-priced six-months pig ever sold. A number of boar and sow pigs by him out of both American and English bred sows now for sale, ranging in ages from four to eight months. Also some choice young sows by Dorset Lee of Blitmore, and bred to Royal Carlyle. One boar by Imported King Hunter; dam, Berks Pansy of Blitmore. One boar by Dorset Lee of Blitmore; dam, Berks Pansy of Blitmore. Guarantee perfect satisfaction or refund the money. For description and prices, write EDGAR B. MOORE, Proprietor, Blitmore, N. C.

OF ENGLISH AND AMERICAN BRED BERKSHIRES.**Glenburn Berkshires.****"Champions Beget Champions."**

Our Hogs are of matchless size, style and quality and are from the bluest blooded animals of England and America.

We have Pigs by imported Loyal Hunter and Hightide Commons, the greatest boars that ever crossed the Atlantic; also by Premier Longtel-low and Masterpiece, winners of 1st and 2nd at World's Exposition, St. Louis; they are out of great sows sired by Lord Premier and out of such great winners as Charmer 65th, Combination, Duchess 2nd, etc. FORFARSHIRE GOLDEN LAD JERSEYS. DR. J. D. KIRK, Roanoke, Va.

POLAND CHINA, TAMWORTH, BERKSHIRE

Pigs at Farmer's prices. Also Bred Sows and Service Boars. All stock entitled to registry and satisfaction guaranteed.

APPLY TO**J. C. GRAVES, Barboursville, Orange Co., Va**

Tell the advertiser when you saw his ad.

WASHINGTON NOTES.

A SEEDLESS TOMATO.

While the government agricultural experiment stations do not wish to duplicate each other's work, the Department of Agriculture has recently received reports from the experiment stations of New Jersey and Wisconsin showing that both of these government institutions have been making experiments along identical lines—the production of tomatoes without seeds. The New Jersey types were obtained more as a result of crossing rather than as a willful attempt to produce a freak, the fruit being of good shape and color, but of inferior size.

Prof. E. P. Sandsten, of the University of Wisconsin, however, reports a most interesting experiment which he carried on with tomato plants.

Recognizing the effect of high feeding, Professor Sandsten undertook his experiment last winter to show the effect upon tomatoes in the experiment station forcing house. Young seedlings, grown in ordinary garden loam, were transplanted to three-inch pots in soil the same as that in the seed box. Three weeks later the plants were transferred to the greenhouse bed where the soil was made up in the same proportion as the pot soil. Commercial fertilizers were made up and applied at the following rate per acre: Nitrate of soda, 800 pounds; sulphate of potash, 600 pounds; desiccated bone, 1,000 pounds. Two applications were made—the first one as soon as the young plants had taken hold of the soil and the second one two weeks later.

"It will be noticed," said Professor Sandsten in his report, "that the amount of fertilizer is excessive and impracticable for all commercial purposes. In fact, I was fearful that this large amount would permanently injure or kill the plants. In a short time the effect of this excessive application of fertilizer was apparent in the young plants, no two of which were alike. One plant in particular, which showed great modifications in the floral parts, was labeled and carefully watched. As the fruit formed and grew it was noticed that the pistil and fleshy part of the ovary developed abnormally and there appeared to be no evidence of seed formation. During the process of growth and ripening of the fruit this fact was further emphasized, and when the first fruit was cut it was found to be seedless.

"Another plant showed a marked tendency to dwarf; the fruits from this plant were small, not larger than a good-sized walnut. The fruits were almost solid and without seed, though in some instances the seed cavities were noticeable. Between these two special types all the plants in the forcing house showed more or less modifications from the original type, and in almost all cases there was a tendency of the plants to produce fruits containing a much smaller

BERKSHIRE HOGS.

OVER FIFTY PURE-BRED HOGS AND PIGS, REGISTERED AND ELIGIBLE, FOR SALE, ALSO A FEW HALF BERKSHIRE SOWS IN PIG TO PURE-BRED BERKSHIRE BOAR.



My herd contains some of the best blood of England and America, including sons and daughters of the greatest prize-winners on both sides the water. Can furnish Pigs and Hogs as perfect in marking, conformation, or in any other respect as are to be had anywhere. The first litter, when two months old, should, with proper care, pay for the sow. In raising breeding hogs, I do not try to force them and have them fat and overgrown, but give them a range of about 100 acres, feeding them enough to keep them growing; they thereby acquire a medium growth, plenty of muscle and are perfectly healthy—ideal breeders.

PRICES—Pure-bred stock: Boars, ready for service, \$15 to \$25; Bred Sows, \$20 to \$25; Pigs, either sex, \$5 to \$15; Half-Bred Sows in pig to Pure-Bred Boar, \$15 to \$20.

Mammoth Bronze Turkeys:

Toms, \$4.00 to \$6.00; Hens, \$3.00 to \$5.00.

S. C. Brown Leghorn Cockerels:

\$1.00; Cocks, one and a half years old, \$1.50. No Pullets for sale at present. Eggs for hatching, \$1.00 for 13.

In selecting my poultry, I have gotten the best, regardless of cost. Send me a trial order and satisfy yourself that my stock is equal to any. Prices include crating and delivery to depot.

W. A. WILLEROY, SWEET HALL, KING WILLIAM COUNTY, VA.
Office—American National Bank Building, Richmond, Va.

Montview Farms.

A RARE CHANCE IN

BERKSHIRE PIGS.

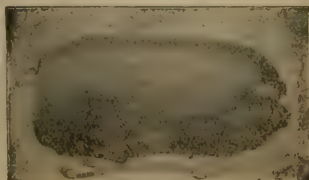
The Southern Railway in double tracking through Montview Farms has taken our hog-yards and part of our hog-house. Therefore we offer a few Berkshire Boars and Sow Pigs, magnificently bred, **FOR LESS THAN HALF OUR USUAL CHARGES**, pending the construction of a new hog-house and runs. Sons and Daughters of **MANOR FAITHFUL**, imported out of splendid breed sows. Also several sons and daughters of **BARON PREMIER**, 3d, a World's Fair winner out of an Imported Sow.

ADDRESS

Montview Farms,

CARTER GLASS, Owner.
C. L. STAHL, Manager,

Box 513, Lynchburg, Va.



Poland Chinas.

A Superior lot of Pigs by my fine Boars, GRAY'S IDEAL, 65806, GRAY'S BIG CHIEF, 57077 and VICTOR G, 57075. Can furnish pairs not skin to those previously purchased. Come to headquarters and get the best at one-half Western prices. Oldest herd in the State.

J. B. GRAY, Fredericksburg, Va.



3 FEEDS FOR ONE CENT

My stallions, Dan Patch 1:55, Cresceus 2:02 1/4, Directum 2:05 1/4, Arion 2:07 1/4, Roy Wilkes 2:08 1/4, Buttonwood 2:10 and my one hundred high-class brood mares eat "International Stock Food" every day. Dan Patch has eaten "International Stock Food" every day for over four years and during this time has broken twelve World Records and his physical condition has been marvelous. It will pay you to use it for your Stallions, Brood Mares, Cows, Race Horses, Show Horses, Carriage or Coach Horses and Work Horses because it gives more Nerve Force, Endurance and Strength. "International Stock Food" is prepared from finely powdered medicinal Roots, Herbs, Seeds and Barks and is fed in teaspoonful amounts as an addition to the regular grain feed. It is equal good and very profitable to use for Horses, Cows, Fatening Cattle, Cows, Calves, Hogs, Pigs, Sheep or Lambs, because it Purifies the Blood, Tones Up and Permanently Strengthens the Entire System. Keeps them Healthy and Graciously Aids Digestion and Assimilation so that each animal obtains more nutrition from all grain eaten. In this way it saves grain and will make you a large extra profit. We have thousands of reliable testimonials on file in our office, and every pound of "International Stock Food" sold, by over 125,000 dealers, on a "Spot Cash Guarantee" to refund your money if it ever fails. Constantly used by over two million stockmen throughout the world. If you desire any further information I will be pleased to have you write me.

M. W. SAVAGE, Prop.
International Stock Food Co.
International Stock Food Farm.

Dan Patch 1:55, The Pacing King, Cresceus 2:02 1/4, The Trotting King, THIS BEAUTIFUL PICTURE IN 6 BRILLIANT COLORS MAILED TO YOU FREE.

We have just published a large, colored lithograph of the above Photo-Engraving, which shows our World Famous Stallions, Dan Patch 1:55 and Cresceus 2:02 1/4, in an exciting Contest and at Extreme speed. The picture is 16 inches by 21 inches and shows both horses in their natural colors and as life-like as if you saw them racing on the track. It is a picture that would sell for \$2.00 if gotten out in a small edition. You can have one of these large and beautiful colored pictures of the two most valuable harness horse stallions and champions of the world, absolutely free and we will prepay the postage. This picture was made from life and every lover of a great horse should have one.

WRITE FOR ABOVE PICTURE AT ONCE.

1st, Name the paper in which you saw this offer. 2nd, State how much live stock you own or care for and then we will mail the picture promptly. 4th, Picture will not be mailed unless you give us this information and address.

INTERNATIONAL STOCK FOOD CO., MINNEAPOLIS, MINN., U. S. A.

AFTER EATING "INTERNATIONAL STOCK FOOD" EVERY DAY FOR FOUR YEARS DAN PATCH OPENS THIS SEASON AS FOLLOWS:

First Start, Galesburg, 1:57 1/4.

Second Start, Dubuque, 1:58.

Third Start, Minnesota State Fair, 1:56 1/4.

Fourth Start, Minnesota State Fair, 1:55.

number of seeds than is generally found in the ordinary fruit.

VARIATION TRANSMITTED TO CUTTINGS.

"Cuttings of the two plants which produced the seedless fruits and others were taken in the spring, rooted and planted in pots, and when the weather permitted were planted in the open field. The plants remained true to type, the amount of fruit produced was considerably more than was produced in the forcing house. The size of the fruit was larger and more regular in form. The difference between the plants from the various cuttings was as great in the field as in the green-house, and showed no apparent reversion to the original type. This was not expected to any large degree, since the plants were grown from cuttings, though I had expected that some degree of reversion might take place. The land on which the tomatoes were grown during the summer was ordinary garden soil. It was well fertilized and in addition a small amount of soluble fertilizer was added, but not enough to

Berkshire Pigs.

I have about 30 pure-bred Berkshire Pigs from 2 to 4 months old which I will sell at prices all low, considering their quality and breeding which I assure you is the best.

Write me your wants or come and make your own selection. You'll get a bargain.

Holstein-Friesian

Cattle; Barred Plymouth Rock Fowls.

THE GROVE STOCK FARM

N. & W. and So Ry.

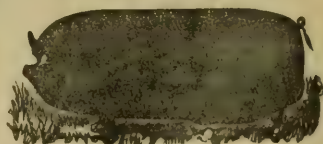
T. O. SANDY, Prop. Burkeville, Va.

ST. AUBIN FARM REGISTERED BERKSHIRES.

The best English and American blood abundance in my herd. Such grand strains as "Loyal Berke," "Royal Canine," "Lord Premier," No. 5004, "British Lord," No. 10464, and many others. If you want the style, quality and calm manners, I have what you want at reasonable prices. Choice Pigs of either sex for sale. Pigs raised net skin.

Satisfaction guaranteed. Correspondence solicited.

Address G. L. HENRY HOLLYDAY, Boston, Md.



make the land abnormally rich. Cuttings have been taken, and it is the intention to continue the experiment for a number of seasons."

Professor Sandsten's experience with the tomatoes is in line with that of Mr. Burbank. The latter, in producing a lot of seedlings, feeds them very highly to break up the type, and by careful selection he can fix the desired type so that it will be permanent. Professor Sandsten's experience, however, in causing such a wide variation with the tomato, in a single generation, is rather remarkable, and his report is most interesting.

ALCOHOL TESTS IN THE BUREAU OF CHEMISTRY.

Is alcohol injurious to the system, and if so, what is the effect? This is a question which Dr. H. W. Wiley, chief chemist of the Department of Agriculture, will attempt to solve soon if Congress will consent to his making experiments with the fluid upon human beings. The Doctor is allowed, under act of Congress, to make experiments with coloring matter and food preservatives, but up to this time no assurance has been given the department that alcohol might be experimented with.

Of course, nearly everybody has an idea that liquor has a deleterious effect on the system in general, and the stomach in particular; that an intemperate use of strong drink produces a general breaking down of the system. But Dr. Wiley wants the facts, and to his mind nothing brings out scientific facts quite as well as scientific experimentation. And he wants live things for his experiments. Therefore, when he made up his mind to ascertain the effect of boric acid on the internal economy of man he induced a number of youths to offer themselves for the sacrifice. Thus was formed what is now known to fame as "Wiley's Poison Squad." The squad ate borax for weeks, and the results were wonderful to behold.

On one occasion, so it is related, each member of the squad turned a beautiful pink, while on another their antics were such as to cause the gravest alarm on the part of Dr. Wiley and the other experts who watched the subjects with as much care and solicitude as a mother would her babe. But the borax poison squad emerged from the chemical dark room whole, and finally became healthy again, and the results were placed before the world in a brochure that has been distributed by the thousands.

This is the way it became known that Dr. Wiley entertains the hope that some day he will be permitted to get a dozen or so human stomachs in captivity and fill them with all forms of alcohol, from the real goods in the rough, grading up from hard cider and beer to straight whiskey, then to the high-ball and then the cocktail and from that delicious concoction to

Jerseys and Berkshires

AT BILTMORE FARMS, BILTMORE, N. C.

Where they are bred right and made right and
YOU CAN GET THEM AT REASONABLE PRICES.
 Now is the time to buy while we are in the notion to sell a few good ones at attractive prices.
DON'T MISS THIS OPPORTUNITY.

If you want a good bull, a good heifer, write us.
 If you want choice Berkshires with size, finish, and early maturing qualities from the most prolific families of prize winning stock, write us.

**Address BILTMORE FARMS,
 R. F. D. No. 2, Biltmore, N. C.**

Jersey, Guernsey and Red Polled Cattle

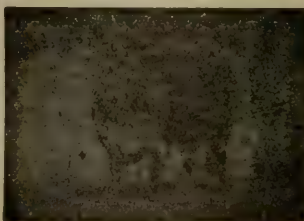
FOR SALE.—A few extra good bulls and heifer calves now ready.

Berkshire Pigs

ready for immediate delivery.

Beautiful Fox Terrier Puppies—great ratters.

M. B. ROWE & CO., - Fredericksburg, Virginia.



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INGLESIDE HEREFORDS

Owned by S. W. Anderson, Blaker Mills, Greenbrier county, W. Va.

A choice lot of **BULLS, COWS, and HEIFERS** for sale. Also a few **POLLED HEREFORD BULLS** recorded in the National Polled Hereford Records. Write for catalogue and prices. Farm near Alderson, W. Va., on the C. & O. E. R. R. Telegraph and Telephone office, Alderson W. Va.

DUROC-JERSEYS

are at the top and there to stay. Write us and we will give you some hog facts that will convince you.

We have the blood of **ORION, OHIO CHIEF** (recently sold for \$2,000.00), **UNVEALATION**, **BURE WINNER**, **TOPNOTCHER**, **PROTECTOR**, **KANT-BE-BAT**, **LONGWELL**, **WASHINGTON KING**, **GO-FORWARD**, **FAYETTE CHIEF**, and **HIGH ORION**, besides a string of others of the leading Western winning strains, **THE VERY CREAM OF DUROC-JERSEY BREEDING**. Our prices are low and the quality is high. We can save you money in the purchase price and in expressage. Write at once and we will give you some **DUROC FACTS**. **LESLIE D. KLINE, Vassar, Va.**

EVERGREEN FARMS

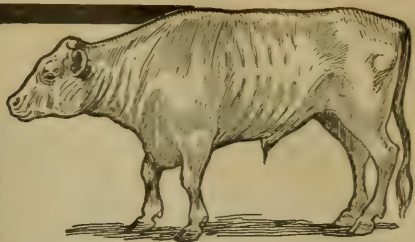
REGISTERED JERSEY CATTLE.
 REGISTERED BERKSHIRE HOGS,
 S. C. B. LEHIGH FOWLS.

My Stock is of the best breeding.
 Prices reasonable. Write me your wants.

W. B. Gates Prop. Rice Depot, Prince Edward County, Va.

From Scrawn to Brawn

The difference between the scrawny animal and the thrifty one is not usually due to the amount of food consumed but the amount digested. In fact, the scrawny animal frequently consumes more. It is a vital point to see that there is a gain in weight each succeeding day sufficient to cover cost of feed and labor, otherwise, you are feeding at a loss. Such a condition can be brought about, and the scrawny animal converted into a brawny, thrifty, profitable one, by adding



DR HESS STOCK FOOD

A TONIC

the prescription of Dr. Hess (M.D., D.V.S.) to the regular ration twice a day. It compels the rapid development of bone, muscle, milk fat, etc. and insures perfect health and condition. It produces this extra profit by supplying the animal with bitter tonics, which improve the digestion, strengthening every function of assimilation; by increasing the flow of intestinal juices; by stimulating the peristaltic action of the bowels (that churning motion that brings the contents of the bowels in constant contact with the minute cells which absorb the nutrition); by supplying iron for the blood, nitrates to assist nature in expelling waste material from the system; and by supplying laxatives to regulate the bowels. Professors Quitman, Winstow, Dun, and all the noted medical writers indorse these ingredients for producing the results above mentioned. Besides, Dr. Hess Stock Food is sold on a Written Guarantee.



100 lbs. \$7.00 25 lb. pail \$2.00
Smaller quantities at a slight advance.

Where Dr. Hess Stock Food differs in particular is in the dose—it's small and fed but twice a day, which proves it has the most digestive strength to the pound. Our Government recognizes Dr. Hess Stock Food as a medicinal tonic and this paper is back of the guarantee.

Free from the 1st to the 10th of each month—Dr. Hess (M.D., D.V.S.) will prescribe for your ailing animals. You can have his 36 page Veterinary Book any time for the asking. Mention this paper.

DR. HESS & CLARK, Ashland Ohio.

Also manufacturers of Dr. Hess Poultry Tonic and Instant Louisa Killer.
Instant Louisa Killer Kills Lice.

the finest "mixed" that is handed over the best bars.

Dr. Wiley, in reply to a question, confirmed the rumor current here that he would soon make experiments with another "poison squad," this time using food products containing saltpetre. The purpose of this investigation is to determine whether or not food products under the new pure-food law and the meat-inspection law, would be allowed to be preserved with saltpetre without a publication of the fact of the presence of such preservative. The experiments on live subjects will show whether or not the salt is injurious.

The squad will be on trial for about four weeks, during which time they will be under careful examination by Dr. Wiley and his assistants. For the first two weeks they will be fed the purest of food and in the last two weeks they will get the adulterated provender, doctored with saltpetre.

To BUILD UP THE FLOCK.

The chicken crop is looked upon by most farmers as a small issue, which is hardly worth much consideration or attention. Look at the crop in the aggregate and see if it does not amount to something. Leaving out

SUNNY HOME HERD —OF— Aberdeen - Angus Cattle.

We make our living breeding Angus cattle, consequently we must breed the sort that will sell at all times. Our experience, gained through a long term of years; convinces us that this sort is produced only by mating cattle of the very choicest bloodlines and highest individual merit. We maintain a good sized herd of females, every individual of which, has for sire, a great prize-winning bull. To mate with these great females, we use bulls that have demonstrated their ability to make good.

Our sales prove our theory of breeding to be correct. We do business every week in the year. For herd breeders, write A. L. FRENCH, Prop., R. F. D. 2, Byrdville, Va.



The Delaware Herd of

ROYAL ANGUS CATTLE

is not surpassed either in breeding or individual animals by any herd in the East. At the head of our herd is

PRINCE BARBARA, 68604.

the son of the great \$2,000 Prince Ito. Females of equally choice breeding. Write your wants. Remember, we take personal care of our cattle; keep no high priced help; incur no expense of exhibiting; all of which enables us to offer stock at equitable prices. Send for pamphlet.

15 Bulls from 2 to 15 months old for sale.
MYER & SON, Prop.

Bridgeville, Pa.

the question of eggs. If the stock of hens numbers forty, 200 chickens should be easily raised during the season. The scrub flock will average four pounds each, this makes 800 pounds of live weight high-class meat, which can be raised at a comparatively small cost and entirely independent of Packerstown. How many farmers who have a good-sized flock of fowls realize that they are raising as much meat as they would in a steer, and meat worth several times as much per pound? Now, having reached this step, does it not occur that it will pay to increase that gross weight as much as possible? If those forty scrub hens are mated in the spring to a pair of blooded cocks of some good, large breed, their 200 chickens will weigh 1,000 pounds instead of 800. Then there will be so much better a chance to select forty fine, large pullets of half full-blood. The following year thecocks can be sold or traded off and other full blooded cocks procured to prevent inbreeding. This will be a very practical way of building up the flock in an inexpensive manner, and the following year the 200 chickens should add another 100 pounds, gross weight. The 1,000 or 1,100 pounds of chicken flesh will cost no more to keep than the 800 pounds. The most worthless scrub eats as much as the prize bird. GUY E. MITCHELL.

AN OLD FRIEND.

A colored brother in a Southern town, had joined every church in the hamlet, and had been baptized by immersion each time he was received into the fold of a different denomination. When he at last cast his lot with the Baptists, the announcement was made that the baptizing would take place at 4 o'clock the next afternoon.

One old sister in Zion leaned over and whispered to another: "Brudder Jackson done been baptised so often dat de fish in de creek most sholy be right well acquainted wid him!"—Woman's Home Companion.

Mention The Southern Planter.



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is the one which contributes 150 eggs or more in a year, toward the family grocery bill. The sure way to have such hens, eggs in abundance, and a lot of ready cash, is to give a little of

DR. HESS POULTRY PAN-A-CE-A

with the morning feed every day in the year. Dr. Hess Poultry Pan-a-ce-a is a tonic, the sole purpose and action of which, is to assist nature in the performance of necessary functions. It aids digestion, prevents disease, and sends the proper proportion of each food element to the organ most in need. It also contains germicides which destroy bacteria, the usual cause of poultry disease. Poultry Pan-a-ce-a is the prescription of Dr. Hess (M. D., D. V. S.), and is a guaranteed egg-producer. Endorsed by leading poultry associations in United States and Canada. Sold on a written guarantee, and costs but a penny a day for 30 fowls.

1 1-2 lbs. 25c, mail or express 40c.
5 lbs. 60c.
12 lbs. \$1.25
25 lb. mail \$2.50

Send 2 cents for Dr. Hess 48-page Poultry Book, free.

DR. HESS & CLARK, Ashland, Ohio.
Instant Louse Killer Kills Lice.

When corresponding with our advertisers, always mention The Southern Planter.

BREEDING EWES. STOCK SHEEP.

I am still receiving large consignments of BREEDING EWES and FEEDING LAMBS and WETHERS and can furnish them until November.

Send for descriptive Catalog and Price List.

I am offering as a special bargain this month about 250 Breeding Ewes that will make anybody money. They run in ages from yearlings to six and seven years old, and are plenty good for two years yet. I will sell these Ewes at the low price of \$3.00 each while they last.

ROBERT C. BRAUER,
Commission Salesman of
Oaths, Hops, Sheep, Lambs and Calves,
Union Stock Yard, Richmond, Va.

MORVEN PARK.

The Property of WESTMORELAND DAVIS, Esq.

Reg. Dorset Horn Sheep.

Flock headed by Imported Ram, MORVEN'S BEST No. 4132 (C. D. C.), 1st. Prize at English Royal 1904.

We are offering for delivery now, last fall born rams which weighed, without forcing at less than six months of age, from 110 to 130 lbs., and averaging 120 lbs. Fit to head any flock.

Large White Yorkshires.

Registered Pigs for sale. Herd headed by Imported boar HOLYWELL HUDDERSFIELD No. 4850, A. Y. C., 2nd prize at Yorkshire (England) Show, 1904. Only time shown.

All pigs either bred on the place and descendants of, or directly imported from the prize winning herds of England. These pigs are prolific, hardy, and they are economical feeders. They are the bacon breed of England and the coming breed of America.

REG. GUERNSEY CATTLE.

TUBERCULIN TESTED.

Herd headed by bull, IMPORTED TOP NOTCH No. 9023 A. G. C. C. son of Imported Beda. Advanced Register No. 136, official yearly butter record 640 lbs. of butter; assisted by MAINSTAYS GLENWOOD BOY No. 7607 A. G. C. C., son of Jewel of Haddon, Advanced Register No. 92, official yearly record 463 lbs. of butter.

We are offering a bull by Imported Top Notch out of Imported Claremont Ruth IV, Advanced Register No. 130, official yearly record 474 lbs. butter, average test 5.6 per cent. butter fat. Also bull by Imported Top Notch out of Princess Dorothy who has just entered the advanced Registry. This bull on dam's side belongs to the Honoria family and is closely related to Guernsey Champion, 1st. at the St. Louis Exposition. Also other bulls from approved deep milking dams.

ALL STOCK IN FINE CONDITION.

Flocks and herds may be viewed by appointment.

Address

**LIVE STOCK DEPARTMENT, MORVEN PARK,
LEESBURG, LOUDOUN CO., VA.**

THE SONGS OUR GRANDMOTHERS SANG.

BY MARY WASHINGTON.

The fashion of songs changes just as much as that of dress—each age having its distinctive songs as well as costumes. If we turn to the songs of our grandmothers we will find them as different from those of the present day as the costumes of the two respective periods. There was a great deal more sentiment and romance about the old songs than about the present ones. They were “all for love and the world well lost.” Modern songs appear lukewarm beside such ditties as these:

“Dark-eyed one! dark-eyed one,
I languish for thee.”

or
“‘Twere vain to tell thee all I feel
Or say for thee I’d die;
I find that words will but conceal
What my soul would wish to sigh.”

or
“Believe me if all those endearing
young charms,” etc.,

or
“How blest are the eyes that that can
wander
Forever o’er charms so divine.”

These are a few of the sentimental songs that our grandmothers sang. Another was:

“When the stars are in the quiet skies
Then most I pine for thee,”

and
“I gave thee all; I can no more,
Though poor the offering be;
My heart and lute are all the store
I have to offer thee.”

Another favorite was:
“She’s all my fancy painted her,
She’s lovely, she’s divine,
But her heart, it is another’s,
She never can be mine.”

Indeed, many of the songs of that day were laments over blighted or thwarted love, as for instance, “We met, ‘twas in a crowd,” where the unhappy bride forced into a loveless marriage by her parents, meets her true love at a ball.

“We met, ‘twas in a crowd,
And I thought he would shun me;
He came, I could not breathe,
For his eye was upon me.

“I wore my bridal robes,
And I rivalled their whiteness,
Bright gems were in my hair;
How I hated their brightness.”

There was also the pathetic lament of a deserted wife, whose husband seemed to be enacting the part of a “lady killer” in society.

“They tell me thou art the favored
guest
In every fair and gentle throng.”

One of the sweetest of the old songs was composed (the words, at least,) by a young poet of Lynchburg, Va., about the year 1836. Bransford Vaw-

Hygeia Farm Holsteins.

The Finest Herd of Registered Holsteins in the Southern States

COWS—THE JESSIE VEEMAN FAMILY

headed by that grand individual, JESSIE VEEMAN A., and including some of her daughters justly come first.

JESSIE VEEMAN A. is admitted by the best judges to be one of the finest types of the Holstein cow, both in conformation and productive ability. Many honors of the show ring have fallen at the feet of this “Bovine Queen.” In 1904 at the New York State Fair, she was adjudged CHAMPION COW. Official record 26.25 lb. butter in 7 days with an average milk production of over 25 lb.

JESSIE VEEMAN C., the eldest daughter, closely resembles her mother in outward conformation. She carried off the highest honors at the New York State Fair in 1905, against strong competition. She has just completed a record of 30.4 lb. butter in 7 days.

JESSIE VEEMAN HENGREVELD. This is one of the greatest producers of this wonderful family. At 3 years old, she produced 11.8; at 4 years, 20.33; and at 6 years, she produced 21.4 lb. of butter in 7 days, the last record being made in very hot weather and under unfavorable circumstances.

The other five daughters are individuals of the highest merit, both in daily conformation and in individual excellence.

FRONTIER JESSIE VEEMAN, 19.4; JESSIE VEEMAN DIONE, 14.98; BERYL JESSIE VEEMAN A., (at 2 years), 9.58; JESSIE VEEMAN A. 2D (at 2 years), 14.49; JESSIE VEEMAN DE KOL (Untested).

JOE BACH JOSEPHINE

another famous member of the herd, is one of the five cows that won the “dual purpose test” at St. Louis in 1904. Her A. R. O. Record is 23.83 lbs. butter in 7 days.

HULDA ABBEKER DE KOL, granddaughter of DE KOL 2ND, has just completed a record of 15.87 lb.

SCOTIA 4TH, A. R. O. Record, 20.15 lbs. butter in 7 days.

NETHERLAND FANCY ROSETTA, A. R. O. Record, 20.53 lbs. butter in 7 days.

COUNTRESS DORINDA DE KOL, A. R. O. Record, 20.37 lbs. butter in 7 days.

PRINCESS KORNDYKE DE KOL. This is a very fine individual whose breeding shows a combination of the blood of DE KOL 2ND, BELLE KORNDYKE, JESSIE BERRY, and NETHERLAND HENGREVELD. The average official record of two of her nearest dams is 24.43 lb. butter in 7 days.

AALTJE DE KOL, 17.33; Shadland Dulcibel 4th, 16.47; ANZAETTA PAULINE PAUL 2D (at 2 years), 19.14; MANOR GRACE PIETERTJE (at 1 year, 9 months), 9.14; DAISY PEOPLES, 19.44; LADY OF BURTON AAGGIE, 11.75; LADY OF HILLSIDE (Untested).

BULLS.—PONTIAC CALYPSO'S SON.

This is one of the finest of the “IMPERIAL PONTIACS,” partaking at once of the individual excellence, both in conformation and production, of his two wonderful grand-sires, HENGREVELD DE KOL, and DE KOL 2ND'S PAUL DE KOL. His dam, PONTIAC CALYPSO, is one of the greatest producers of the daughters of HENGREVELD DE KOL. As a 3-year-old, she produced, during the hottest weather of July, 23.4 lb. of butter in 7 days. She is one of the ten daughters of HENGREVELD DE KOL who with first calf produced an average of 17.75 lb. butter in 7 days. Another half-sister has a record of 24.41.

His sire, BERYL WAYNE'S PAUL DE KOL, has over 40 A. R. O. sisters, one of which is AAGGIE CORNUCOPIA PAULINE, the WORLD'S CHAMPION COW (34.31). He is the sire also of SHADYBROOK GERREN PARTHENIA 4TH, who holds the world's record for production under 2 years old, having produced at 1 year, 9 months, in 7 days, 17.86 lb. butter. The three nearest dams of this young bull have records averaging practically 24 lbs.

KING ORMSBY FRIEND

This bull is an individual of exceptionally good conformation, fine enough to show in any company, and good enough to be at the head of any herd. His dam, PAULINE DE KOL MUTUAL FRIEND, produced under 2 years old, in an official test, 14.23 lb. of butter in 7 days; and again, as a 3-year-old, has placed to her credit 19.55 lb. She was from DE KOL KONINGEN PAULINE, (23.301), and sired by the youngest son of DE KOL 2D, DE KOL 2D'S MUTUAL PAUL, the youngest bull of the breed having a 25 lb. daughter. KING ORMSBY FRIEND was sired by DUCHESS ORMSBY BUTTER KING. His dam, DUCHESS ORMSBY, made an official record of 24 lb. 4.4 oz., her milk showing 5.44 per cent. of fat.

For the purpose of introducing Holstein blood into the South and proving the profit of grading up our herds, this bull will serve a limited number of pure-bred cows of any breed and good grade cow for \$5 each. Arrangements can be made by mail.

I am prepared to furnish the best pure bred Holstein-Friesian cattle from a single calf to car load lots, every animal guaranteed as represented.

For further information come to Hygeia Farm and receive a cordial welcome, or write

SAMUEL ADAMS ROBINSON, M. D., Prop.

COVESVILLE, Albemarle County, Virginia.

Tuleyries Farm Herefords

My Herefords won EVERY FIRST and SECOND PRIZE
at the Virginia State Fair, Richmond.

MY BERKSHIRE BOAR WON FIRST PRIZE ALSO.

Grow good animals from pure-bred males.
Pure-bred stock eats no more than poor stock
but weighs more on the same feeding. Cut
your hay crop with the mouths of your ani-
mals and save labor bills.

Bulls, Heifers, Cows and Boars for sale.

Graham F. Blandy, White Post, Clarke
County, Virginia.

Aberdeen Angus Cattle

100 HIGH-GRADE ABERDEEN ANGUS CALVES
from four to five months old, for sale.

Also a few Choice

Aberdeen Angus Cows

Bred to Registered Angus Bulls.



Apply to
C. R. McIVER,
SPRAY, N. C.



POLAND CHINAS

The Big Kind and the Prize Winning Kind.
PIGS, BOARS AND BRED SOWS FOR SALE.

Herd boars now in service are D's Corrector, 98157, bred by Winn & Mastin of Kansas, and a half brother to the Senior Champion Boar at the St. Louis World's Fair. Half interest in the sire of D's Corrector 98157 sold for \$2,500.00. My other herd boar Big Jumbo 64275 was sired by the 1,00 lb. hog PERFECT 1 AM, 50777 and out of the 700 lb. sow, Lady P. Sanders, 79040. Big Jumbo was bred by W. S. Powell of Kansas.

Also a few short-horn Bulls and Helters.

Also a few choice White Leghorn Cockerels for sale; Biltmore strain.

Satisfaction guaranteed or stock may be returned at my expense.

J. F. DURRETTE, Birdwood, Albemarle Co., Va.



ter was the name of this poet and he would doubtless have attained celebrity but for his early death. The above-mentioned song—"I'd Offer Thee This Hand of Mine"—are so beautiful that I will transcribe them for the benefit of my readers:

"I'd offer thee this hand of mine,
If I could love thee less;
But hearts so pure and warm as thine
Should never know distress.
My fortune is too hard for thee,
'Twould chill thy dearest joy,
I'd rather weep to see thee free
Than win thee to destroy.

"I leave thee in thy happiness,
As one too dear to love,
As one I think of but to bless
As wretchedly I rove.
And, oh! when sorrow's cup I drink,
All bitter though it be,
How sweet 'twill be for me to think
It holds no drop for thee.

"And now my dreams are sadly o'er,
Fate bids them all depart,
And I must leave my native shore
In brokenness of heart.
And, oh, dear one, when far from thee,
I ne'er know joy again,
I would not that one thought of me
Should give thy bosom pain."

Another old-time favorite was "Tis Said That Absence Conquers Love," the words of which were composed by Frederick W. Thomas. The opening stanza is as follows:

"Tis said that absence conquers love,
But, oh, believe it not!
I've tried alas! its power to prove,
That thou art not forgot.
Lady, though fate has bid us part,
Yet still thou art as dear,
As fixed in this devoted heart,
As when I clasped thee here."

A large part of our grandmothers' repertoire was formed of Scotch songs, and there is a touch of pathos about these, and of simple, primitive feeling that makes them perennially fresh and attractive. There is something very distinctive and pleasing about the melody, too, as well as the words. There is "Annie Laurie," for instance; "Auld Lang Syne," "Ye Banks and Braes of Bonnie Doon," "Ha, ha, the Woeful o't," "Auld Robin Gray," "Coming Through the Rye," "Twas Within a Mile of Edinboro Town," and a host of other lovely old Scotch songs which our grandmothers sang.

A RARE PHONOGRAPH BARGAIN

Have you ever listened to a phonograph playing and wished you might own one yourself for your own entertainment in your own home? Winter will soon be here and while sitting 'round the evening fire, how much would it brighten the home and cheer the lagging hours to place upon your own phonograph your favorite song and hear it rendered by the leading operatic star! Next, a beautiful march by Sousa's Band or the latest jokes by the funny comedians to make you laugh heartily. If you like to dance the phonograph will be your orchestra and play two-steps or waltzes, polkas or schottisches according to your fancy. It affords an endless round of wholesome amusement and entertainment for every member of the family from baby to grandmother. Although high prices have prevented thousands from possessing and enjoying these wonderful instruments we are glad to say the talking-machine trust has been outdone by a German genius and by importing them direct in large numbers, we are able to at last offer a real, genuine, handsome talking machine, together with six standard records of late music at such a reasonable price that it is easily within the means of everybody to place one in the home. This is not at all but a reliable, substantial machine that renders any make of standard cylinder records with the same accuracy as the \$50.00 instruments.

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EDWARD WALTER

West Chester, Chester Co., Penna.

often without any accompaniment, for pianos were not so generally diffused through the country then as they are now. These songs have never been consigned to entire oblivion. You can always find a few musicians who have some of these dear old Scotch airs in their repertoire, and they are often selected as encore songs by prima donnas who will fairly bring down the house by singing "Twas Within a Mile of Edinboro Town," or some other old-fashioned Scotch ditty. Amongst the most plaintive of these I might mention "A Weary Lot is Thine, Fair Maid," the words occurring in Scott's poem, "Rokeby," I believe. Another very sweet ditty is taken from his "Quentin Durward":

"Ah, County Guy,
The hour is nigh."

Irish songs, too, have a distinctive charm of their own and were greatly affected by our grandmothers. They have not, as a general thing, the plaintive, minor ring of the old Scotch songs, but they have a tone of true feeling and a great deal of genuine sentiment. The best known Irish songs are those of Tom Moore, especially "The Harp That Once Through Tara's Halls," "Oft in the Stilly Night" and "Believe Me if All Those Endearing Young Charms."

Indeed, the majority of Moore's songs possess such a charm, both of



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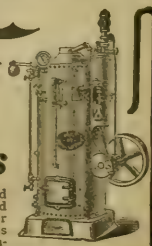
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sentiment and melody, that I doubt not they will be revived and take a fresh hold on the popular fancy. Moore had the advantage of being a musician as well as a poet, and consequently he understood what sounds and measures lend themselves best to song.

I remember two very stormy and "strenuous" songs of fifty years ago (or more), "The Maniac" and "Wind of the Winter Night," but they required a man's voice, and a powerful and well-trained one to do them justice. I used to hear an old lady tell how finely they used to be sung by a distinguished concert singer of about seventy-five years ago, a Mr. Russell. The opening stanza of the last-named song is as follows:

"Wind of the winter night, whence comest thou?

And whither, ah, whither, art wandering now?

What sorrow impels thee thou boisterous blast,

To mourn and complain as thy journey is past?"

INTERNATIONAL LIVE STOCK EXPOSITION, DEC. 1 TO 8, CHICAGO—PREMIUMS TO AROUSE STATE PRIDE.

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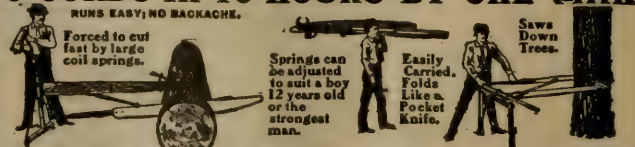
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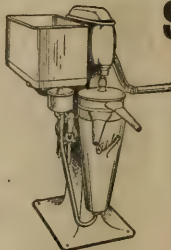
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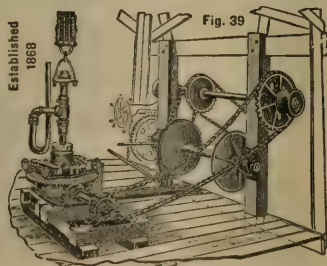
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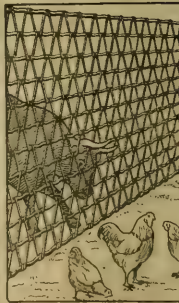
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Kalamazoo Stove Company, Kalamazoo, Mich.—A well-known and reliable firm of stove makers. They sell at lowest factory prices direct to buyers and pay the freight.

American Yorkshire Club Annual—All breeders of Yorkshire hogs should have this Annual. Send to Harry G. Krum, Secretary, White Bear Lake, Minn.

William Eads Miller, Herndon, Va.—Bulletin of real estate for sale.

The American Fruit and Nut Journal, Petersburg, Va., are issuing a nice journal for nut growers. Prof. H. Hume, an authority on nut growing, is now the editor.

The Norfolk and Western Railroad Company has just issued a fine catalogue of Virginia properties for sale, and also a like hand folder of the Waverly property which they are selling in small lots, and where \$500 will buy a 25-acre poultry and fruit farm with comfortable three-room cottage. Send to the Agricultural and Industrial Department of the Norfolk and Western Railroad, Roanoke, Va., for these issues.

Mention The Southern Planter.

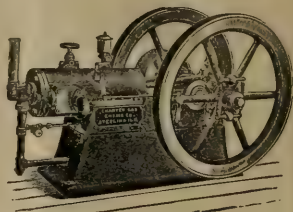
Farming Pays

handsome dividends when the farmer takes advantage of

Labor Saving

Machinery.

Gasoline Engines,
Wood Saws,
Wind Mills Rams,
Feed Cookers, Wire Fences



all save labor. Let us quote you.

Sydnor Pump & Well Co., Inc.,

Dept. B. Richmond, Va.

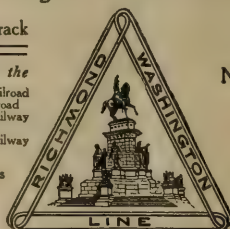
Richmond, Fredericksburg & Potomac R. R.
and
Washington Southern Railway

The Double-Track
Link

Connecting the

Atlantic Coast Line Railroad
Baltimore & Ohio Railroad
Chesapeake & Ohio Railway
Pennsylvania Railroad
Seaboard Air Line Railway
Southern Railway

Between All Points
via Richmond,
Virginia, and
Washington, D. C.



W. P. Taylor, Traffic Manager

The Gateway
between the
North and the South



Fast Mail
Passenger
Express and
Freight Route

ROCKBRIDGE PEERLESS PREPARED AGRICULTURAL LIME

Process Patented August 13, 1901.

Packed in 50 lb. Sack—Easy to Handle.

Can be Drilled With the Seed.

More Efficacious Than Air-Slaked Lime.

Address **ROCKBRIDGE LIME AND STONE CO., Lexington, Va.**

The Best Farm Paper.

AGENTS WANTED.

We want agents to solicit subscriptions for **THE BREEDER'S GAZETTE**, and we offer liberal cash prizes to all who get up clubs. Prof. Henry, of the Wisconsin College of Agriculture, styles **THE GAZETTE**.

The Farmer's Greatest Paper.

Forty eight to sixty four pages weekly, beautifully illustrated; reports of all the principal fairs, horse shows and agricultural meetings, by the best writers. A handsome Holiday number free to all regular subscribers. Agents wanted in all unassigned territory. Sample copies, canvassing matter and premium list free if you mention **The Southern Planter**.

ADDRESS

Sanders Publishing Company

356 Dearborn St., Chicago, Ill.

CORRECTION.

We desire to correct an error which appeared in the advertisement of the Benthall Machine Company on page 851, October issue. In describing the peanut picker advertised by this company the types made us say that the machine was warranted to pick peanuts without breaking the hulls "or ruining" the stems. The advertisement should have read "but removing" the stems. As this is one of the strong features of the machine, we take this opportunity of calling the attention of our readers to it. If you have not inquired into its merits look up the advertisement above referred to and send to the company for circulars and information.

RURAL TELEPHONES.

We take great pleasure in calling the attention of our readers to the recent advertisements of the Western Telephone Manufacturing Company, 73 West Jackson Boulevard, Chicago. This company is splendidly equipped to not only supply first-class instruments and accessories, but will also give advice in regard to establishing local exchanges, etc. If you will send in your name to this company it will take pleasure in sending you an illustrated booklet and catalogue on farm telephones free of cost. Look up the advertisement on page 848, October issue, and send for this at once.

EUREKA STOCK FARM.

Mr. Edward Walter, proprietor of the Eureka Stock Farm, West Chester, Pa., has an attractive advertisement on another page. His offering consists of registered Jersey cattle, Lincoln, Shropshire, Hampshire and Southdown sheep; Chester White, Berkshire and Poland-China hogs; Scotch Collies and several varieties of poultry. Mr. Walter has been a breeder of improved stock for forty years and has an enviable reputation as such. He is situated in a country where pure-bred stock will do its best, and this fact, together with splendid shipping facilities, should most appeal to our readers who are wanting such stock as he breeds. Look up his advertisement.

BLUE RIBBON ON BUTTER.

We are delighted to learn that our friend and long-time subscriber, Mr. Henry Dannehl, Jr., of Fredericksburg, Va., won the blue ribbon on the 5-pound butter print exhibited in the Home Products Department at the recent State Fair held in Richmond. His butter scored 88½. As Mr. Dannehl won over New York competitors, it simply shows that we can make as good butter here as anywhere else and that we should do it instead of paying 30 cents a pound for renovated butter and even more for Northern and Western butter.



Fruit Trees 7½c
(Apple and Peach) Other kinds low in proportion.

Why pay two to five prices for all kinds of nursery stock to cover agents' profits and bad debts, when we, by employing no agents and making no bad debts—selling for cash direct to the people at lowest wholesale rates—will save you so much. Twenty-two years' experience, 1,000,000 high-class fruit trees, 50,000,000 strawberry plants. Special bargains in apple trees. Safe and cheap delivery anywhere in U. S. Valuable book on fruit growing free to buyers.

Strawberry Plants
\$1.25 per 1000 in quantities
Write to-day for free catalog. Mention this paper. Address
Dept. E, CONTINENTAL PLANT CO., Kittrell, N. C.

TREES.

**First Class Nursery Stock
of all kinds.**

**WHOLESALE
AND
RETAIL.**

We make a specialty of handling dealers' orders.

ALL STOCK TRUE TO NAME.

Apples,	Nectarines,	Pecans,	Ornamental and
Pears,	Cherry,	Chestnuts,	Shade Trees,
Peach,	Quinces,	Walnuts,	Evergreens,
Plum,	Almonds,	Small Fruits,	Roses, Etc
Apricots,			

CALIFORNIA PRIVET, for Hedging.

WRITE FOR CATALOGUE.

... AGENTS WANTED. ...

FRANKLIN DAVIS NURSERY CO., Baltimore, Md.

..ELMWOOD NURSERIES..

—We are growers and offer a fine assortment of—

APPLES, PEACHES, PEARS, CHERRIES, PLUMS, APRICOTS; NECTARINES, GRAPEVINES in large assortments, GOOSEBERRIES, CURRANTS, STRAWBERRIES, HORSE-RADISH, ASPARAGUS, DEWBERRIES, and an extra lot Raspberries. Splendid assortment ORNAMENTAL and SHADE TREES, ORNAMENTAL SHRUBS and HEDGE PLANTS. EGGS from B. P. ROCK and BROWN LEGHORN FOWLS at \$1.00 per 13. Also, a few pullets and cockerels of these breeds at \$1.00 each for immediate delivery. Write for catalogue to

J. B. WATKINS & BRO., MIDLOTHIAN, VA.

SURE HATCH IN NEW HOME AT FREMONT, NEBRASKA.

The Sure Hatch Company has moved from Clay Center, Neb., to Fremont, Neb. The Sure Hatch idea was "hatched" in Clay Center and the little town was endeared to the company by nine years of success for which the incubator business offers no parallel. The company's business grew so much faster than the town itself that last year, with sales exceeding 26,000, the company at times was completely swamped because the one-branch railroad could not handle its shipments fast enough, and the town could not furnish the number of skilled mechanics required. Hundreds of impatient customers cancelled their orders for Sure Hatches because of delays in shipment. To have remained in Clay Center another year would have meant an enormous loss to the company.



The splendid shipping facilities of Fremont, Neb., which is a live town of 10,000 people, with four trunk line railroads, induced the Sure Hatch people to locate there.

The new Sure Hatch catalogue and poultry book is now being printed. The book is larger, more fully illustrated, and contains more practical information than ever before. It is worth more than many books that sell for \$1 to \$5, yet it is free. Better send a postal to-day to the Sure Hatch Incubator Company, Box Q 38, Fremont, Neb., or Dept. Q 27, 453 East Washington Street, Indianapolis, Ind. Simply say on it "File my name for a copy of your 1907 catalogue and poultry book," and a copy will be sent as soon as the book comes from the printer. If you do not wish to wait for it, send for the 1906 catalogue. Every poultry raiser ought to own the Sure Hatch book.

DEATH OF THE PRESIDENT OF THE JOHNSTON HARVESTER CO.

We regret exceedingly to have to record the death of Mr. Byron Eugene Huntley, president of the Johnston Harvester Company, Batavia, N. Y., which occurred Friday, September 28, 1906.

Rockbridge Co., Va., Aug. 8, 1906.

It gives me great pleasure to testify to THE SOUTHERN PLANTER's exceeding value as a practical agricultural journal, surpassing in this respect any publication which has come under my observation.

J. D. H. ROSS.

PLANT AN ORCHARD

Every farmer should raise at least enough fruit for home consumption. But why stop there? Why not plant an orchard for profit? "Fruit won't do well in our section," you argue. Surely there is no place in the United States where some kind of fruit or berry will not thrive. If you cannot succeed with one kind, perhaps you can with another. Now, here is where our long experience as Nurserymen will help you. Just write us what you have done or expect to do in the way of fruit raising. We will cheerfully assist you in making selections, or in arranging a succession of fruits for the season, or giving any other advice in our power.

We have nearly 1200 acres in Nursery Stock, and have millions of trees ready for shipment. We are, therefore, in a position to fill your order, (no matter what the size or varieties,) promptly. Write us your wants.

.....WE ARE HEADQUARTERS FOR.....

PEACHES, APPLES, PEARS, PLUMS, CHERRY, QUINCE,

CURRENTS, GRAPES, STRAWBERRIES, AS-

PARAGUS, ROSES, SHRUBS, ETC.

SEND FOR OUR NEW FALL CATALOGUE.

J. G. HARRISON & SONS,

BERLIN

MD.

PLANT THE STRING

Save half the work, save seed, save thinning. get uniform stand, better growth and better paying gardens by using the

Israel Seeded String

A practical money maker for gardeners. Each variety seeds properly spaced in tissue paper string. Tissue paper attracts moisture. Write today for free catalog. Sample assortment Vegetable and Flower Seeds, postpaid, 75 cents. Write for beautifully illustrated booklet. Address

ISRAEL SEEDED STRING CO.,

586 Congress Street,

Chicago, Illinois.

Gardener's Assortment

Lettuce, Beet, Radish, Carrot, Onion, Salsify, Sweet Pea, Aster, Bachelor's Button, Each scholtzia, prepaid \$1.50.

FAMILY GARDEN PLANTER, \$1.50. Prepaid, \$1.95.



Tell the advertiser where you saw his advertisement.

N. R. SAVAGE & SON,
OLD RELIABLE SEED FIRM,
 ESTABLISHED IN 1880.
 WE MAKE A SPECIALTY OF HIGH GRADE
FIELD AND GRASS SEED.

Keep constantly on hand a large and carefully selected stock. We sell the purest and best seed grain and grass seed grown in this country. Guarantee quality as good and prices as reasonable as any other house in the trade. Write for prices.

We are also large buyers of home grown seed grain and grass seeds. Send samples and we will make you offer delivered at your railroad station.

N. R. SAVAGE & SON, RICHMOND, VIRGINIA.

AMERICAN BREEDERS' ASSOCIATION.

The American Breeders' Association will hold its regular winter meeting at Columbus, O., January 15-18, 1907.

The daily sessions are scheduled to take place at the University and Board of Trade buildings through the hospitality of the Ohio State Board of Agriculture, the State University and the Ohio Agricultural and Plant and Animal Breeding Societies.

The American Breeders' Association has organized over forty committees, composed of the leading workers and investigators in the fields delegated to them. The reports of these committees will be a prominent feature of the programme at Columbus. Able speakers and those who have done things in breeding animals and plants will also make the meetings attractive, and a large attendance from all parts of America is assured.

The association has issued two reports, Volumes I. and II., which are sent post paid to all members. Annual membership in North America is \$1; foreign, \$2, and life membership is \$20. For associations and institutions life membership is limited to 25 years. There are now 1,000 annual members and 42 life members.

THE DEAR GIRLS.

Fred: Nothing pleases a girl more than the devoted attentions of the man she loves.

Tess: Oh, yes; there is something that pleases her more.

Fred: What is it?

Tess: The devoted attentions of the man some other girl loves.—Woman's Home Companion.

King William Co., Va., Aug. 24, 1906.
 I think THE SOUTHERN PLANTER is the best paper in the United States for the farmers.
 J. E. TRICE.



W. A. Miller & Son,
 1016 Main St. Lynchburg, Va.
 —DEALERS IN—

Seeds, Fertilizers and Wool.

SEEDS. We sell every kind of seed for field and garden of best quality, and as low as same qualities can be bought in any market.

FERTILIZERS. We sell Fertilizers for every crop, under our own brands. All who have used our High Grade Tobacco Gypsum, Corn Grower, Wheat and Grass Fertilizers, Pure Raw Bone, and High Grade Acid Phosphate, analyzing from 14 to 16 per cent., pronounce them the best they have used.

WOOL. We buy all the year round, and PAY THE HIGHEST MARKET PRICES. Parties wishing to purchase will find it in their interest to see us before buying.

W. T. HOOD & CO.,
OLD DOMINION NURSERIES,
RICHMOND, VIRGINIA.

WHOLESALE AND RETAIL GROWERS OF

High Grade Nursery Stock

Descriptive Catalogue and Price List on Application.

Office: Chamberlayne & Rennie Ave.

Nurseries: Henrico and Hanover Counties.

Caswell Co., N. C., Aug. 10, 1906.
 I consider THE SOUTHERN PLANTER the best paper for farmers, in this section, I have ever seen.
 S. S. LANKFORD.

Cumberland Co., N. C., Aug. 29, 1906.
 I take pleasure in saying I consider THE SOUTHERN PLANTER the very best paper of its kind I know of.
 S. H. STRANGE.

MAGAZINES.

The most noteworthy feature of the November Century, the first number of the seventy-third volume, is the first instalment of Mrs. Frances Hodgson Burnett's new serial, "The Shuttle." Interest is plucked in the first chapter by the Vanderpoels, who are the chief characters in a story of international marriage—"Americans whose fortunes were a portion of the history of their country." These chapters narrate the wooing of Rosalie Vanderpoel by Sir Nigel Anstruthers and the beginning of her married life in England, and give promise of the richest and best work Mrs. Burnett has yet wrought.

This number also carries readers of A. E. W. Mason's fascinating serial to "the home of the running water," and tangles the thread of the plot; and there are five short stories, grave and gay—Anne Werner's "Trading His Mother" being in an altogether different vein from her "Susan Clegg" and "Seing France with Uncle John."

Among the giants of the Civil War era, Jay Cooke played a dramatic part, and the story of his share in saving the nation by supplying the "sinews of war"—even at much personal risk—thrills with interest. This number contains the opening chapters of this story—the first of an important series of papers by Ellis Paxson Oberholtzer on "Jay Cooke and the Financing of the Civil War," which will be of special interest to American business men. The writer is known for his biographies, "Robert Morris, Patriot and Financier," and "Abraham Lincoln."

It will be remembered that Mr. Bryan's essay on Socialism in The Century last April was widely commented upon as an utterance of significant importance. The growing and vital question is again discussed in The Century from another point of view by Franklin H. Giddings, professor of sociology and the history of civilization in Columbia University, under the title of "Mr. Bryan and Our Complex Social Order."

In "The German Emperor's Voice," E. W. Scripture gives an interesting account of how he secured records of the German Emperor's speech—the only one in existence—for the Phonetic Archives at Washington and Harvard. A valuable part of this unusual sketch is the text of the records themselves, one of them a hitherto unpublished homily by the Emperor.

The first number of the thirty-fourth volume of St. Nicholas appears in a new and becoming dress of type, and its contents give promise of a richer and more attractive year than ever before in the history of this enduring favorite of the children. Mrs. Frances Hodgson Burnett's series of fairy stories alone would make any volume notable. This number brings the tale of "How Winnie Hatched the

EUREKA Harness Oil Keeps the Harness Soft and Strong

For preserving the strength and increasing the life of harness
Eureka Harness Oil has no equal. Superior to other brands because free from acid and will not become rancid. Penetrates the leather and makes it weather-proof, sweat-proof, soft, strong and durable. Makes old harness look like new. Prevents rot. Gives a glossy black finish.

Boston Coach Axle Oil makes easy running wheels. Reduces friction to an absolute minimum. Better and more economical than castor oil. Will not gum or corrode. For use on carriages, cabs, buggies.

Sold everywhere.

**STANDARD
OIL CO.**

"A Kalamazoo Direct to You"



ROYAL STEEL RANGE
For All Kinds of Fuel.

Examine our complete line of stoves and ranges for all kinds of fuel. Note the high quality; compare our prices with others, and then decide to buy from actual manufacturers and save all middlemen's profits. Catalog shows 27 styles and sizes for all kinds of fuel. Write now. Sold on 30 Days Approval Test.

Kalamazoo Stove Co., Manufacturers, Kalamazoo, Mich.

All Kalamazoo Cook Stoves and Ranges are fitted with patent oven thermometer which makes baking and roasting easy. All stoves blacked, polished and ready for immediate use when you receive them.

Kalamazoo's are fuel savers,—
They last a lifetime.
Economical in all respects—
They are low in price and high in quality.—
They are easily operated and quickly set up and made ready for business.—

Buy from the actual manufacturer,—
Your money returned if everything is not exactly as represented—

You keep in your own pocket the dealers' and jobbers' profits when you buy a Kalamazoo.

WE PAY THE FREIGHT.

We want to prove to you that you cannot buy a better stove or range than the Kalamazoo, at any price.

We want to show you *how* and *why* you save from 20% to 40% in buying direct from our factory at factory prices. If you think \$5, or \$10, or \$40, worth saving

Send Postal for Catalogue No. 400



OAK STOVE HEATER.
For All Kinds of Fuel



Oven
Thermometer

Tell the advertiser where you saw his advertisement.

Little Rooks," with this foreword and afterword from Queen Silver Bell:

Now please to remember that it is a Fairy who wrote this story—a real Fairy—just as real as you are yourself—because if you don't remember it will make me scold like anything.

The next story I am going to write is about two dolls' houses and the doll families who lived in them—and I know both families well. One doll's house was a grand one and one was a shabby one. And one doll family I liked, and the other doll family I didn't like. And you will have to read the story and find out for yourself—if you have sense enough—which was the nice one.—Queen Crosspatch.

A new serial, "Abbie Ann," by George Madden Martin, author of the "Emy Lou" stories, begins in this issue, too; and Abbie Ann, even on first acquaintance, is a very quaint and lovable little girl. There are concluding chapters of Helen Nicolay's "The Boys' Life of Lincoln" and of Ralph Henry Barbour's stirring tale, "The Crimson Sweater," and another Pinkey Perkins story, "How Pinkey Foiled a Practical Joker," one of the best of the lot. Margaret Johnson's short story is "A Question of Coals," and there are interesting articles describing experiences "On the Bridge of an Ocean Liner," by Francis Arnold Collins, with reproductions of photographs taken by the author on the bridge of the Deutschland, and "How to Teach a Pet Bird Pretty Tricks," by Mary Dawson.

TURKEY TALK.

"My dear," remarked Mr. Grouch, "this turkey is unusually tough. May I ask where you got it?"

"Certainly," returned Mrs. Crouch sweetly. "I purchased it at a stationery store. Do you suppose I got it from the butcher's shop?"

"No, indeed," replied Mr. Grouch, jabbing the carving knife into the hard flesh of the bird, "I have been under the impression for the past ten minutes that you procured it from a hardware store."—Woman's Home Companion.

WORLD'S BEST BUTTER FROM DE LAVAL CREAM

Cream skimmed by a DE LAVAL separator can be made into butter SUPERIOR to that which can be made from cream skimmed by any other separator or system. This is the FACT,—the proof of which grows more and more conclusive each year. Following is a list of the more important STATE FAIR FIRST HONORS awarded DE LAVAL users during 1906:

OHIO—Conover Creamery Co., Greenville.....	Score 99
INDIANA—Ray & Arnold, Logansport.....	" 97
ILLINOIS—W. J. Kane, Morrison.....	" 97
WISCONSIN—W. J. Clark, Troy Center.....	" 97
MINNESOTA—M. Sondergaard, Hutchinson.....	" 98
IOWA—R. Rergsather, Northwood.....	" 98 1/2
SIOUX CITY—C. J. Rohde, Manchester, Iowa.....	" 99

Of special note are the awards made at the Ohio State Fair, where the highest score of 98 went to butter entered by the Conover Creamery Co., of Greenville, MADE FROM DE LAVAL HAND SEPARATOR CREAM, while the butter receiving the second highest score of 97 was also made from DE LAVAL HAND SEPARATOR CREAM by the Glen Echo Creamery, of Springfield. Here, as in many other instances, we have a practical demonstration of how much the DE LAVAL separator means in both creamery and farm separation.

All highest awards in every contest of the National Butter-makers Association, from 1892 to 1906, including the great Dairy Show in Chicago this year, have been won by users of DE LAVAL machines. The butter receiving highest score at the World's Exposition in Paris in 1901 was DE LAVAL made, as was also the Grand Prize butter of the St. Louis World's Fair in 1904. A DE LAVAL catalogue will help to make plain why DE LAVAL cream is superior. Write for it today.

THE DE LAVAL SEPARATOR CO.

RANDOLPH & CANAL STS.
CHICAGO
1218 FLORET STREET
PHILADELPHIA
9 & 11 DRUMM ST.
SAN FRANCISCO

General Offices:

74 CORTLANDT STREET,
NEW YORK.

109-113 YOVILLE SQUARE
MONTREAL
75 & 77 YORK STREET
TORONTO
14 & 16 PRINCESS STREET
WINNIPEG

Mecklenburg Co., Va., Aug. 31, 1906.

THE SOUTHERN PLANTER is certainly a splendid journal and should be read by every farmer.

THOMAS A. ORGAIN.

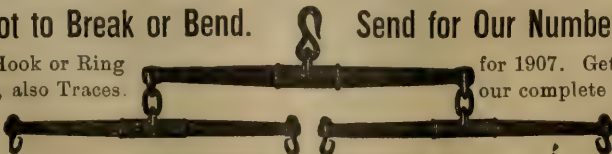
Surry Co., Va., July 21, 1906.

I could not well do without THE SOUTHERN PLANTER. It is worth several times its price to me each year.
E. E. HARRY.

The Everlasting Tubular Steel Plow Doubletrees.

Guaranteed not to Break or Bend. Send for Our Number 8 Catalogue

Furnished with Hook or Ring
For Plow Muzzle, also Traces.



for 1907. Get acquainted with our complete line. Their use spells economy.

ABOVE PATTERN No. 105 MADE IN THREE SIZES

We manufacture a complete line of Doubletrees, Sing etrees, and Neck Yokes of every description. All dealers should handle them, ask yours for them and take no other.

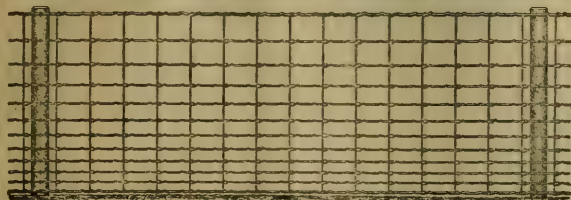
Pittsburg Tubular Steel Whiffletree Company, Sole Manufacturers,
PITTSBURG - - PENNSYLVANIA.

TIME, LABOR and MONEY-SAVING IMPLEMENTS.

SEND FOR OUR NEW CATALOGUE DESCRIBING THEM.

Stands Like a Stone Wall

Turns Cattle, Horses, Hogs—Is Practically Indestructible

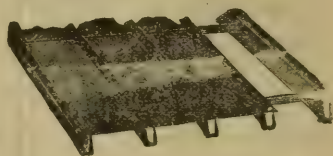


AMERICAN FENCE

Buy your new fence for years to come. Get the big, heavy wires, the hinge joint, the good galvanizing, the exactly proportioned quality of steel that is not too hard nor too soft.

We can show you this fence in our stock and explain its merits and superiority, not only in the roll but in the field. Come and see us and get our prices.

Painted Steel and Galvanized V Crimp Roofing

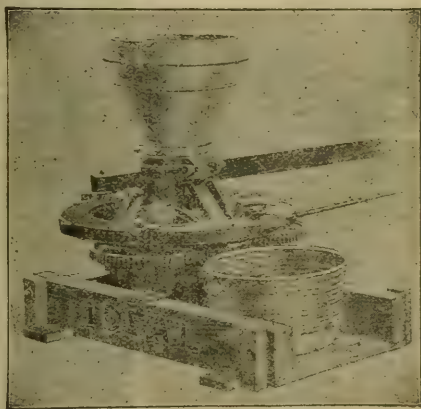
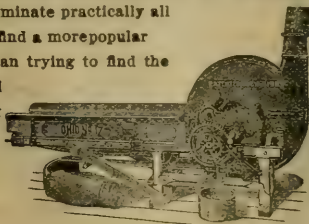


The cheapest and best roofing made. Especially adapted for covering houses, factories, barn and farm buildings. No extra tools required as it can be put on by any farm hand. Furnished in lengths of 5, 6, 7, 8, 9 and 10 feet, and each sheet covers two feet in width.

Ohio Feed and Ensilage Cutters and Blowers

Capacity, 8 to 30 tons ensilage per hour, (according to size of machine), cut and elevated into highest Silo with only 6 to 16 horse power. Marvelous, but due to simple scientific construction. Perfect self feed mechanism and patented Silage distributor eliminate practically all

labor. Trying to find a more popular machine is worse than trying to find the North Pole. Special catalogue describing all sizes, hand and power cutters sent on request.



IDEAL FEED MILLS AND POWERS COMBINED.

Grinds shell grain and corn and cob into the best of stock feed. The power is very useful for running all kinds of light machinery. IDEAL DUPLEX MILLS, all sizes to be run by wind mill or steam power. Get our prices.

We are headquarters for Wheel and Disc Cultivators, Disc and Hoe Grain Drills, Cotton and Corn Planters, Farm Wagons, Surries, Buggies, Harness, Saddles, Engines, Saw Mills, all kinds of Roofing, Barb Wire, Etc. Write us your wants or Come and see us; you get the best in Implements right here.

THE IMPLEMENT CO., 1302 E. Main Street, RICHMOND, VA.

CLUBBING LIST.

In this list will be found prices on papers, magazines and periodicals which are most called for by our readers. We have club rates with nearly all reputable publications, and will quote them on request:

	Dailies.	With Alone. S. P.
Times-Dispatch, Richmond, Va.	\$6 00	\$6 00
Times-Dispatch (without Sunday)	4 00	4 00
News-Leader, Richmond, Va.	3 00	3 00
The Post, Washington, D. C.	6 00	6 00
The Sun, Baltimore, Md.	3 00	3 40
Thrice a Week.		
The World, New York....	1 00	1 25
Weeklies.		
Times-Dispatch, Richmond, Va.	1 00	1 25
Central Presbyterian, Rich- mond, Va.	2 00	2 25
Southern Churchman, Rich- mond, Va.	2 00	2 25
Harper's Weekly	4 00	4 00
Breeders' Gazette	2 00	1 50
Country Gentleman	1 50	1 75
Hoard's Dairyman	1 00	1 30
Horseman	3 00	3 00

Semi-Monthly.

Kimball's Dairy Farmer..	1 00	75
Monthlies.		

The Century	4 00	4 25
St. Nicholas	3 00	3 25
Lippincott's	2 50	2 50
Harper's Magazine	4 00	4 00
Delineator	1 30	1 30
Harper's Bazaar	1 00	1 40
Scribner's	3 00	3 25
American	1 00	1 25
Cosmopolitan	1 00	1 35
Everybody's	1 50	1 75
Munsey	1 00	1 35
The Strand	1 20	1 50
Madame	1 00	1 00
Argosy	1 00	1 35
Review of Reviews.....	3 00	3 00
Field and Stream.....	1 50	1 50
Women's Home Companion	1 00	1 25
Reliable Poultry Journal..	50	75
Industrious Hen	50	75
Poultry Success	50	75
Blooded Stock	50	65
Successful Farming	50	60
Amer. Fruit & Nut Jour...	50	75
Southern Fruit Grower...	50	85
Shepherd's Criterion	50	75
Commercial Poultry	50	75

When two or more publications are wanted, the price for them can be found by deducting 50 cents from "price with Southern Planter."

We cannot under any circumstances furnish sample copies of other publications.

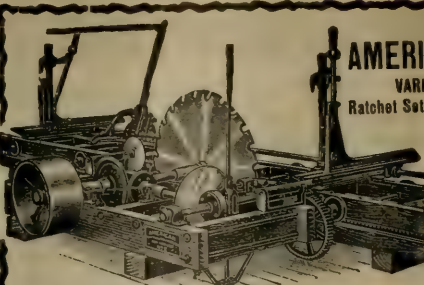
We will cheerfully quote our best price on any list of publications submitted to us.

—THE NEW—

AMERICAN SAW MILL

VARIABLE FRICTION FEED

Ratchet Set Works, Quick Recloder, Duplex
Steel Dogs, Strong,
ACCURATE AND RELIABLE.



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Farm Machinery.

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Gold Medal Flour, per bbl.....	5.25	Ship Stuff, per cwt.....	1.30	London Dock Gin.....	2.50 " "
Dunlop Flour, per bbl.....	4.50	Timothy Hay, per cwt.....	1.20	Five yr. old Gibson	
Obelisk Flour, per bbl.....	4.50	Clover Hay, per cwt.....	.85	Whiskey	3.50 " "
Daisy Flour, per bbl.....	4.00	Coarse Meal, per cwt.....	1.40	Five yr. old Moore's	
Best Water Ground Meal, bu.....	.70	Corn and Oat Chop, per cwt.....	1.15	Corn Whiskey	3.00 " "
New Irish Potatoes, per bu.....	.80	Straw, per cwt.....	.60	Five yr. old Star Rye	
Gran. Sugar, lb.....	.05	Shucks, per cwt.....	.60	Whiskey	2.50 " "
Arbuckle's Coffee, lb.....	.17	Molasses Feed, per cwt.....	1.20	Five yr. old Keystone	
Pure Lard, lb.....	.12	Corn, Oats & Wheat sacks, extra	.05	Whiskey	2.50 " "
Good Lard, lb.....	.10	Peach Brandy.....	\$2.50 per gal.	Three yr. old Excelsior	
Best Salt Pork, lb.....	.12	Fine Catawba Wine.....	.50 " "	Whiskey	2.00 " "
Good Salt Pork, lb.....	.08	Fine Blackberry Wine.....	.60 " "	Two yr. old Old Capitol	
Cut Herring, doz.....	.12	California Port Wine.....	2.60 " "	Whiskey	1.50 " "
Best Cheese.....	.18	Good Port Wine.....	.60 " "	Five yr. old Virginia	
Large Cans Tomatoes.....	.10	California Sherry Wine 1.00	" "	Mountain Whiskey....	3.00 " "
100 lb. Sack Salt.....	.50	Imported Sherry Wine... 3.00	" "	Five yr. old North Caro-	
Rock Salt, lb.....	.01	Imported Port Wine.... 3.00	" "	lina Corn Whiskey....	3.50 " "
Corn, per bu.....	.65			Three yr. old North	
Oats45			Carolina Corn Whis-	
Chicken Wheat per bu.....	.90			key	2.00 " "
Small Cans Tomatoes.....	.08			Jugs, free.	

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BOOKS.

Farm Animals—Horses, Cows, Sheep, Swine, Goats, Poultry, etc. By E. V. Wilcox, Ph. D., A. M., United States Department of Agriculture. New York: Doubleday, Page & Co. Price, \$2.00. This is Volume II. of The Farm Library and is a work which every farmer ought to have. It deals intelligently and informingly with all the different classes of live stock and is beautifully illustrated with pictures of the different breeds. It is interesting readable and practical. We can supply it at the price named.

The Pecan and Its Culture. By Prof. Harold Hume. Published by The American Fruit and Nut Journal, Petersburg, Va. Price, in paper cover, 50 cents. To any one interested in pecan nut growing this will be found a valuable book of reference. We can supply it at the price named.

FRANKLIN DAVIS NURSERY CATALOGUE.

We are in receipt of the new catalogue of the Franklin Davis Nursery Company, of Baltimore, Md. This company has always issued an attractive catalogue, but the present one is an improvement on former issues. In their listings this season they have omitted a lot of varieties of fruits for the reason that they are satisfied that too many varieties have been planted. They will, therefore, confine themselves to the standard and well tested varieties, which are known money-makers for the orchardist. We rather think this is a good idea. While every one is always anxious to get hold of a new variety of anything that is profitable, still dumping on the market dozens of new sorts every year, completely bewilders the farmer or purchaser, who hardly knows what to buy. In ornamentals this company is particularly strong and have listed a splendid assortment of everything under that department. This company will be pleased to correspond with any one interested in orcharding and will also send their catalogue on request. As they have been in the business since 1850 they need no recommendation from us; their record speaks for itself.

Louisia Co., Va., Sept. 2, 1906.

Of the numerous magazines and periodicals we take here there is not one which, in our judgment, approaches THE SOUTHERN PLANTER in usefulness. I believe it to be the ablest farmers' paper published anywhere. JOHN F. T. ANDERSON.

Fauquier Co., Va., Sept. 6, 1906.

I cannot get along without THE SOUTHERN PLANTER. C. L. MCCOY.

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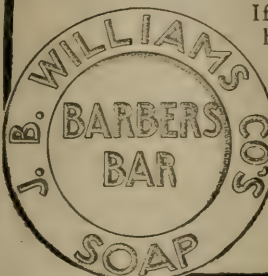
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THAT'S because you make neat, compact bales and because they are shaped right. The press shown above is our smaller size, the one horse press, size of bale chamber, 14 x 18 inches. Even with it you can bale eight to ten tons of hay a day.

You see it is full circle. No backing up to jake the horse or to require a driver.

And the pulley is remarkably light for the pressure it puts on the hay. This is because through the arrangement of compound levers when the pressure is the greatest there is no increase of draft on the horse.

It will bale timothy, clover, alfalfa, prairie hay, straw, husks, shredded corn stalks, pea vines, sorghum, moss or excelsior.

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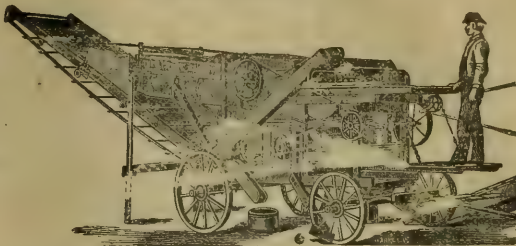
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AUCTION SALES ON WEDNESDAYS AND THURSDAYS EACH WEEK.

CULTIVATION OF THE SOIL AMERICA'S SALVATION.

"Every acre of this domain is good for something." This, in a nutshell, is the answer of Secretary Wilson, of the Department of Agriculture to the question asked by Jim Hill, railroad king and financier, in an article written by him. "How shall we feed the 200,000,000 Americans who will, in fifty years, constitute this nation?"

"We are wasting the resources of our land," Mr. Hill writes, "and of our mines and forests we can already see exhaustion in sight. What will take the place of these things—our iron and coal and oil, our lumber and timber, the virgin fertility of a soil fast being exhausted." The security of the nation must be in its soil, said Mr. Hill, and in this, Secretary Wilson agrees. "The soil," said the Secretary of Agriculture, "must bring forth new forests in place of those cut down; it must give power and heat and light for the teeming millions of mankind when the coal and oil shall have been exhausted; it must develop substitutes for the iron that cannot last long. And all of these it will do and it is now doing.

"With regard to the exhaustion of wood, oil, and coal, the farmer will meet that," continues the Secretary. "Congress has taken the first step in

granting free alcohol, and this Department is at work learning what can be done to develop its possibilities. The chemists are working at a big cannery in Illinois to learn how to produce alcohol cheaply from the by-products of that business and we have an expert in Europe to study and bring back supplies of seed for production of the big stock potato raised there for alcohol and stock food. Still other experts are studying the uses of alcohol, heat and power."

The Secretary of Agriculture believes that the fertility of our soil can be kept up by crop rotation and cited a number of cases in Iowa where from thirty to forty bushels of wheat were obtained by this method, whereas the average in this country is a little less than fifteen.

"There need be no fear of the capacity of the soil to feed the people Mr. Hill expects to see here," remarked the Secretary, "and I don't question his figures, either. We will have them, but we must have different farming methods. Every acre of this domain is good for something. We are raising the spineless cactus on the sands of the Mojave desert, and feeding cattle on it, to determine how the results compare with those in more favored sections.

Mention The Southern Planter when you write advertisers.

PEANUTS.

Petersburg, Va.—From information based on the peanut crops thus far harvested throughout this section, the crop will fall considerably short of an average per acre yield. Growers, whose crops were well planted on soil adapted to this crop and well cultivated, find, in many cases, that the yield is not half of what might have been expected, which is due to the very unfavorable seasons which prevailed throughout the growing period. A small lot of new Spanish sold the first of this month on this market for \$1 a bushel. Old crop nuts are quoted at \$1.25. The market is bare of supplies and the growers are anticipating unusual high prices this fall.

Norfolk, Va.—Rains materially damaged the peanut crop throughout this section, and it is estimated that the yield will fall from 25 to 50 per cent. The crop last season approximated 2,500,000 bags, and it is estimated that the crop this year will be about 1,750,000 bags, showing a loss of 750,000 bags, which is considered conservative. The figures are based on the estimated acreage and on reports as to the condition of the crop at harvest time.—*American Fruit and Nut Journal.*

W. K. BACHE & SONS,

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PRACTICAL AND PROGRESSIVE AGRICULTURE, HORTICULTURE,
TRUCKING, LIVE STOCK AND THE FIRESIDE.

Agriculture is the nursing mother of the Arts.--XENOPHON.
Tillage and pasturage are the two breasts of the State.--SULLY.

67th Year.

Richmond, Va., December, 1906.

No. 12

Farm Management.

WORK FOR THE MONTH.

Now that the harvesting of all the staple crops of the farm have been practically completed, farmers can take stock of the results of their year's labor and make plans for the future. When the Southern farmer compares this year's results with those of the past few years, he will not be able to do so with the most complete satisfaction, for though yields of most of the staple crops have been up to, and, in some cases, above the average, yet so much loss has been occasioned by bad weather in the harvesting period that final results are not what could be desired. The wheat crop when cut was a fine one and if it could have been saved, would have given a return in excess of that of some of the best years in the past. Continued wet weather, however, so damaged the grain in the shocks that the ultimate yield realized was below the average in quantity and the quality was generally very poor. Some few farmers here and there were more fortunate in escaping the wet weather, and these made satisfactory yields both in quantity and quality. Taking the whole country into consideration, the wheat crop is a large one, possibly the largest ever made, and as this has happened at a time when the crop throughout the world has, with few exceptions, been also good, the probabilities are that the price will not likely advance very materially over that at present prevailing. The oat crop is considerably below the average in quantity, but this is not likely to materially affect the price, as the corn crop is so abundant and these two stock feeds are

largely used interchangeably. The corn crop is the largest one ever made in this country. The preliminary returns to the Government Bureau indicating a yield in excess of 2,800,000,000 bushels. Some authorities go so far as to predict a yield of nearly 3,000,000,000 bushels. Such a crop as this coming immediately after one in excess of 2,700,000,000 bushels might be reasonably expected to affect the price prejudicially, but, so far, no such effect has been apparent. Statistics go to show that last year's great crop has gone into consumption, and there is even less than the average surplus carried over to compete with this year's crop. It is a wonderful indication of the prosperity of the country when so large a crop as that of last year has been so closely consumed and gives point to what Mr. Hill has so recently said that the question will soon be not what we are to do with big crops, but how we are to proceed to make those crops larger in order to meet the demands of the growing population of the country. In Virginia the yield of the corn crop is put at over 24 bushels to the acre, which is over three bushels to the acre in excess of the average for ten years. In Maryland the yield is put at 35 bushels to the acre, which is three bushels to the acre in excess of the average for ten years. In North Carolina, the yield is put at a little over 15 bushels to the acre, which is two bushels in excess of the ten year average. In South Carolina the yield is put at a little over 12 bushels to the acre, which is three bushels in excess of the ten year average. In Tennessee the yield is put at 28 bushels to the acre, which is seven bushels in

excess of the ten year average. These yields in excess of the ten year average all through the Atlantic Coast States and in Tennessee are most gratifying, as they indicate that better methods are being adopted and that farmers are becoming farmers in reality and not planters only. Whilst these yields are so much better than the average, they are not yet what we ought to produce by any means. There is no reason whatever why the Southern States should not produce as large a yield per acre as any State in the country. The best yield made by any State is 42 bushels to the acre. This is made by Ohio. We have a better climate for the corn crop than Ohio, and much of our land is quite as good as that of Ohio, and, with proper preparation before the crop is planted, and the growing of the crop in a proper rotation with the legumes, there is no reason why we should not grow over 42 bushels to the acre on the average. The average yield of Maryland, 35 bushels to the acre, compares very favorably with that of the other Atlantic Coast States. It is an evidence of better farming in that State than in the other States, as Maryland lands are naturally no better than those of the other Coastal States. We believe that the more general use of lime in Maryland than in the other Southern States is largely responsible for this better yield. It has improved the physical and mechanical condition of the soil and made available latent fertility in the soil. This and the keeping of more live stock on the farms, so as to ensure the application of more manure of a character to supply humus to the soil, is what is mainly needed to cause a very material increase in the average yield per acre of the corn crop. In this issue will be found a communication from a subscriber in which he shows that the cost of production of a bushel of corn, where the crop makes an average of 50 bushels to the acre, is very little over 15 cents per bushel, which leaves a good profit on the work with corn selling at 50 cents per bushel, and it is rarely much below that figure in this market. We know of men who sold last year's crop at 60 cents per bushel and are now selling this year's crop at that figure. We regret to say that much of the corn grown on the James River low lands has been lost by a sudden rise in the river, which occurred just after we went to press with the November issue. Much of the corn had been cut and left standing in shocks on the land, and these were largely carried away by the river. The uncut corn was also considerably damaged by the water rising over the ears. We have repeatedly urged upon

the owners of these river lands that they should remove the corn to higher land as soon as it is cut and there set it up to cure. If this is done there is no risk of the crop going down the river. It is to move out of the field sooner or later, and may be just as well moved as soon as cut as later. A number of owners of these lands have adopted this rule and these men saved the corn so removed and only suffered the loss caused to that part of the crop uncut by the water standing on the land for a few days. Much of this damaged corn will still make good feed for stock.

The hay crop of the Southern States has given an average yield almost equal to the average yield throughout the country and considerably in excess of the yield in many of the Northern and Western States. This goes to support our contention that we can grow hay as well in the South as it can be grown anywhere in the country. The average yield per acre in this State is 1 1-4 tons, and is slightly in excess of this in Maryland and North and South Carolina. Hay is now selling here at \$20 per ton on the farm, and rarely sells below \$15 per ton. At these prices it is a profitable crop to grow and greater attention ought to be given to it. With labor scarce and wages high, much saving might be made on many farms by putting land into permanent meadows, and this would also greatly tend to the permanent improvement of the lands.

The tobacco crop of this State is placed at 675 pounds per acre, which is about the average of the crop for the past ten years, but is less than the yield last year, and the quality is also lower. In Maryland, North and South Carolina, and Tennessee, the yield is below the ten year average and considerably less than that of the last two years. Here, also the quality is lower. Notwithstanding these facts, on account of the much smaller area planted and the consequent reduction in the crop, tobacco is selling well on the market and the probabilities are that the money realized will be up to the average. There is great room for improvement in the quantity of tobacco grown per acre in the Southern States. The average yield per acre might well be doubled, and this without anything like doubling the cost of production. The first requisite for attaining this end is the filling of the soil with vegetable matter from the leguminous crops; the next, a better preparation of the soil before planting, and, lastly, by a much

more discriminating use of fertilizer for feeding the crop. As is pointed out by a correspondent in this issue, tobacco growers instead of mixing and using a fertilizer specially adapted to their lands and the crop purchase largely 2-5-2 goods on the advice of the dealers, and use these in very limited quantity. If they would follow the advice given them in *The Planter* each year, or take note of the work done on the tobacco experiment farms in Appomattox and other counties, they could easily greatly increase production and quality at very little more cost.

From the foregoing review, it will be seen that Southern farmers, whilst not without some cause of complaint, have, on the whole, come through the year with a fair return for the labor expended. Had they not had the losses caused by the rain to the crops when cut or after cutting, but before they were fit to house, the year would have been a very profitable one for most crops, as the prices of all the staples, except wheat, have kept firm. All finished farm products, such as beef, mutton, hog meat, butter, cream, milk, poultry and eggs, have kept at a high figure all the year and are to-day higher than at any time for years past. The cost of living in the cities is to-day higher than it has been for twenty-five years at least. It is at least sixty per cent. higher than it was ten years ago, and the greatest part of this increased cost is on the products of the farm and truck fields. No doubt there is some increase in the cost of production, on account of the higher price of labor, but, with the much greater use of machinery on the farm, a much larger production per man is being secured, and the latest statistics go to show that farmers throughout the country were never so prosperous as at the present time. We rejoice in this prosperity, and hope to see it continue for many years. There is no reason whatever why it should not do so and be still further enhanced. We entirely agree with the opinion of Mr. Hill, given in the address of which we published an abstract in our October and November issues, that the constantly growing population of this country is going to make such a demand upon the productive capacity of our lands that farmers will be hard set to meet the demand and will need to use every help that science and mechanics can give them to meet the needs of the people.

The farmers of the South ought to profit much more largely from the present and coming great de-

mand for their products than the farmers of the other sections of the country. Climatic conditions are such in the South that we can produce and supply something from the farm every day in the year, and we can do this at less cost than elsewhere. We can make two and often three crops in the year on the same piece of land, whilst the Northern and Western man can only make one, and we can produce beef, mutton, lamb and hog meat cheaper than the farmer of any other section because we have not the necessity for costly shelter from the winter storms and have so much longer an out-door grazing season. The condition precedent to our reaping all these advantages is that we shall get out of the old planting system and go to farming really. Already much has been done in many sections of the South towards this change, but it is essential that the change should proceed quickly everywhere if we are to get our share of what is coming. Rotations of cropping must be introduced. The production of forage crops, grass, clover and alfalfa must be made a first consideration, instead of merely a side issue as at present. These must be fed to live stock on the farm and thus the fertility of the land be enhanced, and this without the assistance of the fertilizer merchant. When the Southern farmers keep the live stock, which they can and ought to do, and consume on the farm all the roughage and forage crops they can make and much, also, of the grain and cotton seed which is and can be much more largely produced here, then they will be in a position to limit greatly the outlay now incurred in the purchase of commercial fertilizers, which is at this time the greatest drain on the profits of the Southern farms, and they will be able to supply all the staples and most of the luxuries of life at a lower cost than any other section and yet make more profit in doing this than they have ever made in the past or than any other section can do. Our lands only need the adoption of a system of rotation of crops, which shall bring upon them one or other of the legumes every other year, either as a summer or winter crop, deep and perfect breaking and cultivation of the soil, some lime and some phosphoric acid in the form of floats or acid phosphate to make them as productive as any lands in the world, and then with our climate favoring us, we can claim and secure a big share of the coming demand for the products of the soil. We can never do this or get even a fair share of the prosperity coming to the farmers until we get out of the present ruts. Now, at the close of one crop year and the opening of another one,

is the time to make the required change in system and get in to line for better farming. The advice given by a so-called agricultural paper, which is at the present time being largely boomed in some sections, that farmers do not need to learn anything more about the production of crops, as they already know all that is necessary for them to know on this subject, and that money spent in supporting experiment stations and investigators is money wasted, is arrant nonsense and an insult to the intelligence of the farmers. Not a day passes when some most important piece of information is not discovered somewhere in reference to the production of some crop or the feeding of some animal, upon which hinges the price at which the product can be profitably produced, and which neglected by those not giving heed to such information means loss and failure. Southern farmers have too long been resting content with the information and methods which their forefathers possessed and followed. If they are to get their share of the prosperity coming to the farmers, they will have to keep themselves posted on what the Experiment Stations and investigators are doing, and now is the time to send in their subscriptions to the Agricultural Journals which supply this information. The Southern Planter has always made it a feature of its work to keep closely in touch with the latest scientific work affecting agricultural progress and to give its readers the earliest information possible to be had on everything likely to add to the profits of the farm. The practical experience which the Editor has had in over twenty-five years' work on the farm has qualified him to form an opinion as to the practicability of the application of new theories and scientific discoveries affecting agriculture in all its phases, and this knowledge he places at the service of the subscribers of the Journal. We would ask that our friends send us in their renewals at once and take advantage of our liberal offer to those sending in the names of new subscribers.

It is now too late to sow any crop this year except in the Tidewater section of Virginia and North and South Carolina, where Canada peas, wheat and oats may, with advantage, be sown. This crop makes one of the earliest spring grazing and forage crops, and matures its growth before the hot weather sets in. It is essentially a cold climate crop and does no good seeded late in spring, as hot weather causes it to mildew and die. In middle Virginia and North Carolina it may be seeded up to the end of February, or even the first half of March; and further West, in

the mountain country, may be sown up to the end of April. We have seen splendid crops of the mixture made in Tidewater Virginia from seed sown in December and January. In April the crop was so well grown that it completely covered the land and it was difficult for a horse to walk through it without being thrown down with the tangled vines. In May the crop was cut for hay, and the land at liberty for a corn or other crop. It is a most excellent crop for grazing hogs. In sowing the crop plow the land deep and work fine, and then put the peas in with a drill, giving them a cover of five or six inches, or, if no drill is available, then work the peas in with a cultivator. Sow two bushels of peas per acre. After the peas have been sown, then sow broadcast three pecks of wheat or winter oats per acre, and harrow this in with a spike tooth harrow. If the land is not in a state of good fertility, an application of three hundred pounds to the acre of acid phosphate should be made broadcast.

Though it is too late to sow any crop other than the Canada pea crop, the fine, open weather which we are having ought to be fully utilized by keeping the teams at work breaking land intended to be cropped next year and not seeded with some fall-sown crop. The full utilization of our mild winter months in the doing of this work of breaking land can be made to greatly relieve the pressure of work in the spring months, and it can be done with great advantage to the land and to the ultimate profit of the crop to be grown. It was formerly thought that the winter plowing of land in the South was not advisable and that it was labor wasted, but this idea has been demonstrated to be wrong. Whilst we do not have the severe frosts which so thoroughly disintegrate land in the North when plowed in the late fall months, we yet have usually some frost in January and February sufficiently severe to act favorably on the land in the way of breaking down the clods and opening out the tissues of the soil and killing many destructive forms of insect life which hibernate in the soil during winter. But even if we do not happen to have the necessary frosts for these purposes, the breaking of the soil permits of the absorption of the winter rains into the land and the storing of these in the subsoil for the subsequent use of the crop. Land not broken in the late fall and winter is largely impermeable by these rains. They fall on a hard, baked surface and run off into the ditches and creeks and are lost and crops subsequently suffer from a lack

of moisture. It is of great advantage, when breaking the surface of the land, to also break the subsoil by following the turn plow with a subsoil plow, especially is this the case with land which is underlaid with a hard pan, which is the case with so much land in the South, which has for years never been plowed deeper than four or five inches at most. It is also advisable to subsoil wherever the subsoil is a good clay one, as in this way this subsoil becomes aerated and fitted to be worked into the surface soil, where the inert plant food in it becomes of great help in crop production. We have subsoiled scores of acres of land having a good clay subsoil, and never failed to derive benefit from so doing. A large number of our subscribers, who, acting on our advice, have subsoiled parts of their farms, have testified to us that they derived much benefit from so doing. Another great reason for plowing and subsoiling land in the South during the winter months, is that it is the only certain way in which to make an end of the gulleys and galls which so disfigure the farms of the South and give to them, in the eyes of strangers, the appearance of being wasted and neglected, and which are a source of great loss to Southern farmers in the depreciation of the value of their farms and in the loss of soil. The reason for the existence of these gulleys and galls is that the rainfall cannot permeate the subsoil and, therefore, accumulates in the surface soil until it becomes so super-saturated that it can no longer retain its hold on the subsoil and slides down to the lower land in the form of mud. The subsoil thus left bare then begins to disintegrate under the action of the sun, air and frost, and as soon as disintegrated, slip off its subsoil as mud and so enlarges the gully, and this process is continually repeated until we have the terrible scarred hill sides which are so frequent an eye-sore in the South. Deep plowing and subsoiling will make an end of these gulleys and add dollars an acre to the value of the land. In addition to these general reasons for deep fall and winter plowing of the land in the South, there are special reasons for the practice inherent to Southern lands. Prof. King, the greatest authority on the physics of the soil in this country, has made a special study of these soils and he says, "Southern soils have much less pore space and openness than is characteristic of the best Northern soils. This openness of structure in soils is an extremely important character, for it determines not only their capacity for both air and water, but also the freedom and rapidity with which these indispensable component parts of all fer-

tile soils move into and out of the root zone. It even determines, in very large measure, the depth of the root zone itself, and thus the magnitude of the feeding area available to the crops, which in turn is a prime factor in determining the fertility of all field soils. Not only do the soils of the North and South differ in their openness of structure, but the soils of the South have a less complete and less strong granulation, and these two characters are extremely important in determining not only the freedom with which both rain and air enter and leave the root zone, but at the same time they influence the depth to which roots penetrate the soil. The larger pore space and coarser and stronger granulation provide greater capacity and better facilities for the storing of the rain as rapidly as it falls, and as a consequence of this difference in the character of the soils in the two contrasted regions, there is better under-drainage, less surface-washing of fields, and less loss of water-soluble plant food in the North, while the roots of crops generally penetrate the soil much more deeply than they do in the South. * * * There can be little doubt that deeper plowing will not only lessen the tendency of Southern soils to wash, but that it will increase their general productive capacity." The winter is the proper time to do this work in the South, both economically and effectively, and we urge that attention be at once given to it. The new soil may be turned up to the surface now without any risk of its not being sufficiently aerated for its plant food to be available for crop production next year. If the work be deferred until spring, this will not be so. Do not be persuaded to neglect doing this breaking now by the man who tells you the land will all run together again before spring and the breaking will be to do over again then. In the absence of severe frost, the surface may crust over, but this surface will be easily broken and the whole soil be made into a fine seed bed with either a disc harrow or a sharp toothed spike harrow, and this additional working will greatly conduce to the well doing of the crop by making more of the plant food available.

Any new land or land that has been laying out of cultivation for years, and which it is intended to crop next year, should now be taken in hand to prepare it for breaking and cultivation. Grub out all stumps, small trees, and rocks, and cut off and burn all briars and other trash. Make a complete work of this, not leaving the stumps or rocks on the land to be plowed round or to harbor weeds and insect pests. Haul the

rocks on to the roads of the farm, and thus make them useful in making firm, solid roads, which will last for years. They should be broken small and be laid level on a dry foundation and have a good ditch opened on each side and be covered with gravel or sand and be rolled smooth. Have the fences around the land to be brought in set in straight lines so as to avoid awkward corners, which cannot be conveniently plowed or worked. As far as possible, enclose the land in a square or rectangular form, as fields regular in shape are much more conveniently worked with machinery and their area can be more conveniently ascertained for calculation of seed and fertilizer required.

This is a most convenient season for putting up new fences and repairing old ones. The post holes are much more easily dug now than at other seasons and the post can be more securely set and a better job of work be done. Old worm fences should be removed and the good rails be used in making new straight fences by fastening them to the posts with fencing wire running up one side of the post and down the other with loops at the proper intervals to carry the rails. The wire should be stapled to the posts between each rail, and thus a firm, good fence can be made. It is far better to fasten the rails in this way than to nail them, as the old rails are apt to break off at the nails, or to split when the nails are being driven.

When drains are needed in a field, this is the proper time to lay them. Before beginning the work of drain laying, have a plan made showing the proper location of the drains and be careful to have levels taken accurately so that each drain may have a regular fall sufficient to carry the water running in it to the main drain or outfall. Put the drains down deep and let them run in line with the fall of the land and not across this fall. A drain running with the fall of the land will draw the water from both sides of it for a considerable distance, whilst a drain running across the fall of the land in a diagonal direction will only draw water from the upper side. Drains should be put down at least three feet deep. It is the underlying stagnant water which does the injury to the land and the crop and not the water which falls on the surface. The drain should be deep enough in the soil to remove the stagnant water and then the water falling on the surface will soon get away. Wherever drain tiles can be had at a reasonable price, these should be

used as they make a permanent work. If they are not procurable, then poles may be used. Whether tiles or poles be used, let the drain be filled tightly to the top with clay and soil, putting the clay in first. Never fill up with rocks or trash. A tight filled drain will always draw the water out of the land. A loose filled one will only carry off the water that rises in its course, or falls upon the line of the drain, or is directly carried into it by the lay of the land.

Clean out the ice house and repair it where needed, particularly seeing that the drainage is provided for and that the drain is properly trapped to avoid the inrush of warm air into the bottom of the house. If you have no ice house, take steps at once to build one. Neither milk nor butter can be handled successfully in the South without ice during the summer months. The cost of building an ice house sufficiently large to hold a supply for a moderate sized farm need not be heavy. What is needed is practically a house within a house with a space of twelve inches between the walls of the outer house and those of the inner house, this space to be filled and packed tightly with sawdust. The roof should be made in the same way and double doors be provided. A drain should be provided to carry off all water from the ice and this should be trapped to prevent warm air entering. This trap is simply a bend in the pipe, which will always stand full of water and thus seal the pipe. The floor of the house should be of lumber laid with openings between the pieces to let the drainage fall clear of the ice into the drain at once. There should be good ventilation provided in each end of the roof, so as to ensure a current of air over the ice. When filling the house pack the ice solid and put ten inches of sawdust between the walls and the ice and cover with a foot of sawdust, and on this place a thick covering of cut straw, hay, or short litter.

Have the ice pond cleaned out and all stagnant water drained away, and the banks made good, and then see that only pure, clean spring water is stored for freezing. Freezing water does not purify it and there is, therefore, danger in using impure water to fill the ice pond.

The sweet potato and peanut crops have both been considerably reduced in yield by the wet season, and are much below the average, both in quality and quantity.

The final cotton crop estimate is not yet issued, and, therefore, we are unable to deal with this. There seems to be a considerable difference of opinion upon the probable total yield. In several sections much damage has been done to the crop by the recent tropical storms, and this will, no doubt, reduce the crop. The price keeps firm at ten cents or better.

PERFECTING THE CORN CROP.

(Continued from November issue.)

The importance of improving the corn crop will be more generally recognized when it is realized that 88,091,993 acres of land were devoted to this crop in the United States in 1904. The yield was 2,244,176,925 bushels, and the value \$852,868,801, or almost one billion of dollars. The yield was only 25.5 bushels per acre, and the price 42.5 cents per bushel. The price of corn is steadily increasing from year to year and is becoming an increasing burden in that sense to the farmer as it costs him more to finish his cattle or feed his dairy cows than formerly, and makes it more and more difficult for him to feed his corn at a profit to live stock. It is thus important that the amount grown be increased and that the cost of production be reduced to the lowest possible point. This very desirable result can be brought about, as already suggested, by improved methods of cultivation and fertilization and by increasing the yield through selection.

That much can be done to improve the yield of corn in the United States and that the Southern farmer is as much interested in this problem as those in any other section of the country, is shown by the following table, giving the acreage, yield, and value of the corn crop in Illinois, Tennessee, Virginia, Alabama, and Georgia. Notice that while the Illinois farmer obtains a yield of 32.2 bushels per acre, his corn was only worth \$11.59 per acre. In Tennessee, where the yield was 23.5 bushels, the value per acre was \$11.52. In Virginia, where the yield was 22 bushels, the value per acre was \$11.55. In Alabama, where the yield was 14.8 bushels, or less than half of that obtained in Illinois, the value per acre was \$8.44; and in Georgia, where the yield was 11.7 bushels, the value per acre was \$8.07. In other words, while the Illinois farmer can only obtain 36 cents per bushel for his corn, the Georgia farmer obtains 69 cents. There is thus every reason for Southern farmers giving more attention to the im-

provement of the corn crop as they obtain a much higher price per bushel than farmers of the Middle West, and if they would increase the yield of their corn by better cultivation and more liberal and intelligent fertilization, their profits would be much greater than at the present time.

Statistics of Corn Production by States, 1904.

State.	Acre.	Total Yield.	Yield per Acre.	Value epr Acre.	Value per Bushel.
Illinois	8,201,473	264,087,431	32.2	11.59	\$.36
Tennessee	2,263,565	75,283,778	23.5	11.52	.49
Virginia	1,822,968	39,740,702	22.0	11.55	.53
Alabama	2,820,011	41,736,163	14.8	8.44	.57
Georgia	3,938,324	46,078,391	11.7	8.07	.69

It is doubtful if the influence a perfect stand has on the yield of corn is fully appreciated. If it were, surely more attention would be given to this important matter. The average yield in Virginia is about 22 bushels per acre. Suppose the corn were planted in checks 39.6 inches apart in each direction, there would be 4,000 hills per acre. If the ears average 8 ounces, which would be a very low weight, and each hill contained one stalk, there would be 77 per cent. of a stand; if there were two stalks per hill, only 38.5 per cent. of a stand. If the ears weighed twelve ounces apiece, and there was one stalk per hill, there would be 51.75 per cent. of a stand; if there were two stalks per hill, only 28.87 per cent. of a stand. If the ears weighed 16 ounces apiece, and there was one stalk per hill, there would be 38.5 per cent. of a stand; if there were two stalks per hill, 19.25 per cent. of a stand. Land of fair fertility should produce two stalks per hill at the distance apart indicated, yet in no instance with the weight of ears indicated would there be a half stand.

Is the low yield of corn due to an imperfect stand? To a very considerably extent it is, but fortunately both the condition and the remedy are within the control of the farmer if he fully realizes what a perfect stand means to him. There are many instances, however, where there may be a practically perfect stand, and yet a low yield of corn will result. This may be due to a large per cent. of barren stalks in the field, or to the improper development of the ear, due to a lack of phosphoric acid or some other element of plant food. Whatever the cause, it is certainly important that a change be effected at once, for even if an 8 ounce ear is produced on every stalk, only 3080 hills out of 4,000 would produce an ear when the yield remains at 22 bushels per acre. As a matter of fact, corn produces a larger ear in the South more nearly approximating 16 ounces than

8 ounces; and, in this case, though one stalk only was planted to the hill, only two-thirds of the land would be occupied by productive stalks. Take a walk through your corn field and examine carefully the stand; also, notice what per cent. of the stalks are yielding good ears. Weigh a few of the ears and see what the size and type you are growing is like, and you will find many ways by which you can increase the yield of your corn that will appeal to your reason and that are easily within your power to change. If every farmer would take this advice and act on it, it would not be long before we would be raising much more than 22 bushels of corn to the acre in the State of Virginia.

The importance of securing a perfect stand will be further emphasized by the following statement: Suppose corn is planted in checks 39.6 inches apart each way. This would give 4,000 hills per acre. If each stalk produced an 8 ounce ear, the yield would be 28.57 bushels per acre; if each stalk produced a 12 ounce ear, the yield would be 42.85 bushels per acre; if each stalk produced a 16 ounce ear, the yield would be 57.14 bushels per acre, or almost two and one-half times the average yield now obtained. Suppose that two stalks were planted in each hill and a perfect stand obtained. Then if each stalk produced an 8 ounce ear, the yield would be 57.14 bushels per acre; if each stalk produced a 12 ounce ear, 85.71 bushels per acre; and if each stalk produced a 16 ounce ear, 114.28 bushels per acre. These results show that a uniform stand and type of ear will do much to increase the yield of corn.

There is another matter which should not be overlooked—the importance of selecting a variety adapted to the environment in which it is to be grown. The following table gives the comparative results obtained in growing ten varieties of corn under the same conditions for a period of three years. Some of these corns were, of course, not grown on soils to which they were well suited. For example, Huffman, a magnificent type of river bottom corn, when grown on uplands only yielded 30.55 bushels. This corn when grown under the most favorable conditions on the same farm yielded 60 bushels per acre.

Comparison of Some Standard Varieties for Three Years.

	Days Maturing.	Height, Inches.	Green Stover, Tons.	Yield Bus'sls.	Per Cent. Cob.	Weight, Bus'sls.
Huffman	128	102	9.99	30.55	17.76	68.08
Wild Goose.....	119	116	8.22	36.61	16.66	67.19
Virginia Ensilage.	118	106	8.25	39.45	15.04	65.90
Yellow Creole....	126	115	8.19	26.95	23.78	73.47

Cocke's Prolific....	119	108	8.07	36.95	19.18	66.25
Hickory King....	117	100	6.91	46.87	13.09	64.43
Champion W.						
Pearl	105	80	6.24	43.41	17.88	66.13
Leaming.....	104	100	6.22	42.13	19.76	69.78
Pride of Nishna....	105	100	6.05	35.41	18.06	66.34
Large W. Flint....	111	104	5.86	30.76	25.07	74.77

Observe that Large White Flint only yielded 30.76 bushels per acre, whereas, Hickory King yielded 46.87 bushels, or 16 bushels more per acre. Yellow Creole only yielded 26.95 bushels as against 42.13 bushels in the case of Leaming, and Cocke's Prolific only 36.95 as against 46.87 with Hickory King. Thus, it is easily possible to select a variety of corn entirely unsuited to the conditions under which it is to be grown, or one which is naturally a poor variety, and thus decrease or increase the yield anywhere from 15 to 20 bushels per acre. This is a matter of such universal importance that it should receive the most earnest consideration at the hands of the farmer. Yet all sorts and varieties of corn are experimented with from year to year, whereas, the best corn for any locality is that grown there for several years and so properly acclimated. There are only a very few varieties of corn and these should be carefully studied out and every effort made to improve them. Much better results in the way of increasing the yield will result from this practice than from frequently changing seed and attempting to obtain largely increased yields through the trial of every new variety that is placed on the market. The experiment stations have been accused of devoting too much time to variety testing, yet, after all their labors and results do not seem to have made as much impression on the farmers as they should have.

There is another way in which the variety should be carefully studied, and that is with regard to the yield of stalk and per cent. of cob and grain. A large, coarse stalk is not desirable as a foodstuff; it makes a heavier draft on the food constituents of the soil and is cumbersome to handle in every way. Hickory King, for instance, made the highest yield of grain under a trial continued for three years, yielding from 3 to 16 bushels more than a number of varieties producing stalks of equal or greater size. Notice, also, that the per cent. of cob in Hickory King was 13.09 as compared with 25.07 in the case of Large White Flint; 23.78 in the case of Leaming, and 19.76 in the case of Yellow Creole, a difference of from 5 to 10 per cent. in the amount of grain shelled out by 100 ears. This will have a material influence on the yield, so a variety should be sought with a small sized cob, as a large cob adds nothing in the way of value to the corn. It is ap-

parent, therefore, that through careful and judicious selection of varieties and their proper adaptation to the local environment the yield of corn can be very considerably increased over that ordinarily obtained.

Did you ever make a mechanical selection of your corn in the crib? The following table shows the results of picking over 10 bushels of corn just as it came from the field. This corn was not grown on good land and, therefore, may not do justice to the variety, but it brings out some ideas which it seems well to impress. The variety used was Leaming. The ears were divided into five types; namely, good ears, those having big butts, or tapering ears, slim ears, and nubbins.

Mechanical Selection of Ten Bushels of Leaming Corn.

Type.	Number of Bushels.	Number of Ears.	Weight of Ear—Oz.	Per Cent. Grain.
Good ears.....	5.83	572	8.38	77.91
Big butts.....	1.09	127	9.6	79.6
Short, thick ears.....	.44	45	11.24	81.36
Slim ears.....	.44	81	7.86	82.26
Nubbins.....	2.40	626	4.27	78.84
Total.....	10.00	1,431		

Notice that there are only a little over five bushels of good ears in a well-bred and long-established variety of corn, and over two bushels of nubbins. Surely, there is room for improvement in any variety where only 50 per cent. of the yield may be classed as good ears, and yet Leaming would class better in this respect than many of the varieties of corn commonly cultivated. Of the 1,431 ears in ten bushels, 572 were classed as good ears, 127 having big butts or tapering ears, 45 as short, thick ears, 81 as slim ears, and 626 as nubbins. The weight of the different grades of ears was as follows: Good ears, 8.38 ounces; big butted or tapering ears, 9.6 ounces; short, thick ears, 11.24 ounces; slim ears, 7.86; and nubbins, 4.27 ounces. About half of the ears weighed only a little over 4 ounces, and only 45 out of the 1,431 weighed over 11 ounces. The good ears only shelled out 77.91 per cent. of grain; the big butted ears, 79.6 per cent.; the short, thick ears, 81.36 per cent.; the slim ears, 82.26 per cent., and the nubbins, 78.84 per cent. The nubbins were remarkably close to the other ears so far as per cent. of grain was concerned. But it is well to remember that while the nubbins were under-sized, their development was practically perfect. In all cases the per cent. of grain to cob was low; very low, in fact, as compared with some ears which have been grown in our experimental plants. Some of these ears shelled out 91 to 92 per cent. of grain, being thus fully ten per cent. better than the best of the

ears obtained by the mechanical selection mentioned above. These results show that corn, as ordinarily grown, is not only low in per cent. of grain, but that there is a wonderful variety in the type of ears, and by far too large a per cent. of nubbins. Increased yields will result from selecting so as to bring about uniformity of type in the size and shape of ears, and when these results are obtained, larger per cents. of grain should be sought. It is not a difficult matter to secure a comparatively uniform type of ear in corn provided the work is gone about systematically, and the benefits to be derived from the use of better seed and from the improvement of varieties through selection are so well substantiated that they should appeal to the common sense of every farmer.

ANDREW M. SOULE, Director.

Experiment Station, Blacksburg, Va.

(To be continued.)

HAY PRODUCTION IN VIRGINIA.

Editor Southern Planter:

I have been a constant reader of your paper for a number of years, and have been much benefitted by the suggestions therein in regard to farming. I thought perhaps you would like to have a statement of my hay crop for this year, as I know you have always insisted that hay can be successfully grown in the South. I have made and stored in my barns 3,851 four horse wagon loads of hay estimated to average 1,500 pounds to the load, making 2,888 1-4 tons of an average value of, say, \$18 per ton, or a total value of \$51,988.50. No commercial fertilizer was used on the land where this hay was made, but I feed from 600 to 1,000 head of horses, cattle and mules every winter and haul out from my barns and stables every spring from 1,000 to 2,000 tons of stable and barnyard manure, which I scatter broadcast with manure spreaders and manure forks over my meadows. About one-half of the land where this hay grew is bottom land, and the other half is upland supposed to be about 1,200 acres altogether. Very little of this land would be considered rich, but the most of it is good land. I would have made over 3,000 tons but for the early frost which cut my hay crop short between 100 and 200 tons. My hay is all mixed hay, consisting of orchard grass, red clover, herds grass (red top), timothy, English blue grass, and Johnson grass, which makes a splendid feed for horses, cattle and mules. I feed my cattle no grain or shipstuff of any kind, and some of them are

fat enough in the spring for beef. I am now selling my hay for \$18 per ton and have no difficulty in getting that price for all I can spare after keeping enough on hand to feed my stock.

Henry Co., Va.

H. C. LESTER.

This is a most satisfactory report and shows the capacity of Virginia land for producing hay.—Ed.

TOBACCO PRODUCTION.

Editor Southern Planter,—

I have read the articles in your paper on "Southern Tobacco Growers" with much interest.

Whether the growers can increase the price, or, as you claim, there is danger in attempting to do this of stimulating other countries to increase their production, I will leave for other minds to solve. But if the tobacco growers do not wish to increase the production they can raise the same amount of tobacco on half the land, thus leaving the other half for forage crop, which will prevent the large drain in cash from the country to the city each year for hay and other feeds.

Where the Virginia farmers can save greatly is in their fertilizer bills, and I would say right here that if the Association does not show better business judgment in managing their tobacco business than they do in buying fertilizer, the movement is doomed to failure from the start.

I have had the opportunity of meeting a large number of the officers and members of the above Association, and in very few cases could they give an intelligent reason for the use of the fertilizer that they were buying, except that it was what the local dealer had advised them to use.

In the majority of cases, the composition of fertilizer was directly opposed to all the advice of both the State and Federal Experiment Stations. When asked what experiment had been conducted to lead the farmer to go counter to all recognized teachers in this line, the answer would invariably be, "I never used anything else." Is it not refreshing in this age of graft, when one would scarcely dare to trust his own brother, to see such firm, childlike faith in the fertilizer dealers? Yet, how far have the dealers been true to the trust imposed upon them! I must be charitable and assume that they are blind leaders of the blind, for upon looking up the last State bulletin, I see that the brand most popular with the farmers and most loudly trumpeted by the deal-

ers is a 2-8-2 goods. Without considering its want of special adaptability to the tobacco crop, this brand contains 685 pounds of filler to the ton. Surely, each farmer has enough sand on his own farm without paying for mixing, bagging, freighting and then teaming often fifteen or twenty miles over poor roads, 685 pounds of filler in each ton. Why, the amount paid for sand alone by the farmers of Virginia would, if expended on the roads, give every man a good road right to his own door.

To show how little interested the farmers are in this question, I would say that a few days ago I attended a Farmers' Institute meeting, where two recognized leaders in their special lines were to speak—one an acknowledged expert in tobacco fertilization. After waiting until half past eleven, the meeting was begun with a half dozen farmers present.

During my work in the vicinity of the Tobacco Experiment Station in Appomattox county, I found very few tobacco growers who had even taken the trouble to look over the fence to see what was being done.

I may say for the benefit of those of your readers who do not know that the fertilizer used to produce 1,527 pounds of dark tobacco per acre at the Appomattox Experiment Station, which sold for \$126, was made up of 1,200 pounds of dried fish, 150 pounds of nitrate of soda, 100 pounds of bone meal, and 250 pounds of sulphate of potash.

Prof. Massey's formulae for bright tobacco, given at the Boydton meeting, was 100 pounds nitrate of soda, 900 pounds acid phosphate, 600 pounds dried blood, and 400 pounds sulphate of potash. I would add one word of caution: None of these formulas should be followed blindly, but each farmer should experiment for himself and use the combination which he finds suited to his own soil, but in any case he can safely leave the sand out of his fertilizer or if he is, as many farmers are, worried about the "body" of his fertilizer, he will find it much cheaper to add sand out of his own field rather than to pay freight and haulage charges on filler.

G. F. MARSH.

Mecklenburg Co., Va.

The American Cultivator calls attention to the increased scarcity of lambs, and consequently of breeding stock, by reason of the increasing demand from the packers. With this condition of affairs, the natural conclusion would be that it is a good time to put on a flock of sheep.

DENATURIZED ALCOHOL.

Editor Southern Planter:

With reference to a statement made in an article, Denaturized Alcohol, in a recent issue of the Southern Planter, that thousands of acres of potatoes are grown in Goernmany for the purpose of making alcohol, which also appeared in other Agricultural papers, I would like to say that this view is an entirely erroneous one; not a potato is grown in Germany for this purpose. (It is difficult for us to reconcile this statement with what appears later in this article, where the writer says that the potatoes are utilized in distilleries on the farm, thus producing alcohol, and by-products for feeding purposes, and that over 95,000,000 of gallons of alcohol are made in Germany, of which two-thirds are made from potatoes.—Ed.) The article also gives the impression that potatoes for manufacturing purposes are grown in all parts of Germany. This, however, is not the case. Potatoes are very extensively grown in North Germany on a plateau extending from West to East of rather light soils, ranging from a heavy loam to a loamy sand. These soils are natural potato soils, they have good drainage, can be easily worked, and will produce, under proper management, almost from year to year, large quantities of starchy potatoes. The quantity of potatoes grown every year in Germany is so large that the surplus cannot be sold. Potatoes were selling there last winter for 12 cents per bushel, and, according to a reliable report, three million bushels rotted last winter because no use could be found for them.

The soils on this plateau have been farmed for such a long time that they have lost their original fertility, so that their present productiveness depends almost entirely upon the applied quantities of manure and fertilizers. If the potatoes had to be sold to distilleries located in large cities from whence the slop could not be returned to the farm, the farmers would be under great expense in maintaining the fertility of their soil.

By converting the potato into alcohol in small distilleries located on the farm, only the starch is removed and the soil fertility maintaining parts, the nitrogenous and mineral matter are returned in the manure to the soil. By constant manuring and fertilizing, the light soils have been brought to such a high state of fertility that a crop of red clover and wheat can be grown, though not oftener than once in an eight or nine field rotation.

To give the readers some data how these farms are

conducted, I would like to cite here the management of a large farm on which I was employed four years, and with the management of which I am familiar. Members of the German Agricultural Society visited this farm this spring on one of their regular excursions, and a description of the farm was published in the Ill. Landw. Ztg. of July 13th, so that the given figures represent present conditions: The farm has a total area of 3,485 acres, of which 1,685 acres are under the plow, 1,299 acres are permanent meadows, 491 acres are forest, 10 acres are yard, garden, etc.

The following number of live stock are kept:

32 horses, 80 oxen, 180 cows, 1,200 sheep, 6 saddle and carriage horses, 10 colts, 40 young cattle.

140 hands are employed the year around. During the harvest season, sixty extra hands are taken on. The colts, young cattle, and sheep are pastured for about five months and kept in the barn for the balance of the year. The cows are fed 365 days in the year in the barn. The produced manure amounts to 6,875 tons a year. Besides this manure, the following quantities of chemical fertilizers are used:

166 tons superphosphate, 10 tons Thomas slag, 110 tons kainit, 55 tons nitrate of soda; total, 341 tons.

As the permanent meadows, land with a high ground water table, too wet for any other purpose, do not receive any of the manure or of the fertilizers, they are top dressed with compost and ashes from fuel used in the distillery—every acre of the tilled soil receives every year 4 tons of manure and 400 pounds of fertilizer, or the double quantity every other year, according to the manner in which it is applied. Without this heavy manuring and fertilizing, maximum crops could not be grown.

The 1,685 acres under the plow consists of three different kinds of soil. There are 985 acres upland loam, 200 acres sandy loam, forming the transition from the upland to the lowland soil, and 500 acres lowland, mostly light humus soils, resting at a depth of three feet on quicksand. The 985 acres loam are laid out in a ten field rotation with three fields with potatoes, three with rye, and four with fodder crops. The 200 acres sandy loam are laid out in a four field rotation—green fodder, rye, potatoes and barley. The field in which the green fodder is grown is fertilized with the urine from the 180 cows, the soil producing large crops of succulent green fodder. The 500 acres of light humus soils are laid out in an eight field rotation—one oats on sod, two fallow,

three rye, four potatoes and turnips, five oats, six hay one cutting, seven and eight pasture.

The upland loam produces an average of 240 bushels potatoes per acre; the sandy loam, 180 bushels, and the light humus soil, 120 bushels or, a total; of 84,600 bushels a year. These yields are not high, but it should be borne in mind that the main point aimed at in growing the potatoes is producing the greatest quantity of starch per acre, and not merely the greatest number of bushels. This is essential, as it does not cost any more to convert the starch of 1,000 bushels of potatoes containing 20 percent. starch into alcohol than it does 1,000 bushels containing 10 per cent. starch. If farmers who own distilleries buy potatoes from neighboring farms too small to own a distillery, they discriminate against potatoes with a low starch content, and I suppose the owners of distilleries would do the same here. The distilleries are started the first of September and closed the first of June. As far as the profit from the manufacture of alcohol is concerned, it is smaller than most people think. The farmers in Germany are satisfied if the by-products—the slop—is free. According to the last census, 95,532,000 gallons of alcohol are yearly produced in Germany, of which two-thirds are made from potatoes in 12,500 country distilleries, of which 5,226 produce only from 264 to 2,642 gallons of alcohol.

In growing potatoes on a large scale, it must not be overlooked that the potatoes require considerable work, that the soil must be carefully worked, that it must be free of weeds and heavily fertilized. The keeping of large quantities of potatoes over winter requires considerable attention, as they are easily injured by frost. If the potatoes are sold and the slop is not returned to the farm, there will be a deficiency in the quantity of produced manure, which has to be made good in some way, which is sometimes difficult to do.

The chief value of growing potatoes on a large scale lies, like the growing of sugar beets, in the careful and thorough working of the soil, with its marked influence on the yield of the other crops. The statistical reports show that with the introduction of the growing of potatoes and sugar beets on a large scale, the yield of the other crops has increased 25 per cent.

At the present time the price of potatoes is so high that they cannot be profitably used for the manufacture of alcohol. Whether, with our steady increasing population, mostly in the large cities, and the

scarcity of farm labor, potatoes will ever be grown in such large quantities that they cannot be consumed and the surplus has to be disposed of in some other way cannot be conjectured at the present time.

Washington, D. C.

H. WINKELMAN.

A curious fact has recently come to light with reference to Irish potato growing. It is that North Carolina has the largest Irish potato farm in the world. One grower in that State last year made a crop of 60,000 bushels. Who shall say that we in the South may not yet grow potatoes for the production of alcohol, at least as a side issue?—Ed.

MR. CLARK'S HAY CROP.

Mr. Clark, of Higganum, Connecticut, who for many years has made the production of hay a specialty and who in that time has made some of the heaviest yields per acre which have been produced in this country, writes us that he has this year made 102 tons of thoroughly cured and dried hay on 14 1-2 acres of land. Of this area 3 1-2 acres is in alfalfa, being cut this year for the first time. This has yielded four crops, the first three weighing 14 tons. Mr. Clark always emphasizes the fact that the secret of his success as a grower of hay is in the intense cultivation which he gives the land previous to seeding. He works it over and over again until every particle of the soil has been stirred and broken fine, and then sows the seed, and almost every seed germinates and makes a thick, heavy sod at once.

Don't omit to place a box of soil for potting in the cellar this fall. You will need it to plant seeds in in the early spring, even if you keep no house plants. One-third each of garden loam, leaf mold, and old unleached cow manure, is about right.

Got any hickory trees on your farm, or in your wood lot? Treasure them as you would gold. Hickory is becoming increasingly scarce. High as its present prices are, they are likely to go to more extraordinary figures. Hickory trees are good property, and should be cut only after most careful consideration and marketed wisely.

The aggregate crop of wheat for 1906 is estimated by American Agriculturist at 776,363,000 bushels, against 720,000,000 bushels last year. The average rate of yield is 15.6 bushels.

Trucking, Garden and Orchard.

WORK FOR THE MONTH.

Spinach and kale, when not already seeded, should be at once sown.

See to it that you secure a good supply of woods mould, old turf and sods, and vegetable trash from the old hedge rows and fence bottoms. This should all be well mixed together and be piled up near to the cold frames for use in them and the hot beds in the spring. Raw phosphate rock or acid phosphate and some potash may be mixed in the heap with advantage.

The fine open weather we are having has been most favorable for the setting out of cabbage plants for the spring crop and the work has made good progress. It should be pushed to completion as soon as possible, so that the plants may get hold of the land and commence to make root growth before the cold weather strikes them. It is not desirable for them to make too much leaf growth in the fall, as this is necessarily tender and is at once cut off by the first hard freeze and this checks the further growth of the plant for a time. For this reason it is not well to use nitrogenous fertilizers, except in small quantity, when setting out the plants. Give the mineral fertilizers—phosphates and potash—liberally at setting or before and then top dress with the nitrogenous fertilizer when growth starts in the spring.

Set out lettuce plants in the cold frames and also in the open ground where they can be protected in case of a severe spell of weather. Very slight protection will suffice to save them from serious injury in the trucking sections of this and the adjoining States, but further inland they should not be set out in the open unless means are provided for more complete covering during the hardest weather. Pine branches stuck in amongst the plants and straw spread lightly over these and amongst the plants will afford protection sufficient in sheltered situations or in the trucking sections. The plants set out in the cold frames should have full exposure to the air whenever the weather is mild, but the frames should be closed at night and on cold, stormy days.

The setting out of strawberry plants may be continued until severe weather sets in. It is rarely that strawberry plants suffer much from the winter weather in this and the adjoining Southern States, if they are firmly set in the ground. The policy of protecting them with some covering of pine trash or straw in these States is much debated. As stated, it is rarely needed, and probably the only advantage secured by it is that it ensures a little earlier starting in the spring, and the covering, when raked off the plants and spread in the rows, makes a good mulch to preserve the moisture in the land and protect the berries from being dirtied with the mud and sand splashing on to them.

The planting of orchards should be pushed on so long as the weather keeps open. We strongly advise fall planting all through the South, as the trees practically gain a year when set out in the fall over those set out in the spring. In setting out apple, pear and plum orchards, it is well always to bear in mind that very many varieties of the apples, pears and most of the native plums are self-sterile and require pollinization from other varieties to secure a perfect set of fruit. For this reason it is important never to set a large block of one variety alone, but to run in amongst the trees a row of another variety blooming at the same time, to secure cross pollination.

In the Tidewater and middle sections of the Coast States, a very early crop of Irish potatoes may be raised by planting the sets now. They require, however, special treatment to succeed. The rows should be opened out very deep by running the plow through them two or three times. The soil in the bottom should then be broken loose and a good potato fertilizer be applied liberally and be mixed with the soil. The sets should then be planted at the usual distance apart and they should be covered with soil lightly. On this soil a thick covering of farm yard manure should be spread and upon this a ridge of soil should be plowed from each side. Early in the spring this ridge should be harrowed down. If the potatoes should show signs of coming through before danger of severe frost is past throw a light furrow on to them. We have had reports of good crops made in this way very early in the season.

THE VIRGINIA APPLE CROP.

Looking up the statistics of apple production in the various States for several years past some little time ago, we were much struck with the fact that the production of this State, as shown in these statistics, was a diminishing quantity in each year. Knowing of the enormous increase in our orchard area within the past ten or fifteen years, we felt that gross injustice was being done the State and our apple producers by these statistics. In illustration of what we found stated, we quote the following figures from the apple crop report of the American Agriculturist: 1902, 2,500,000 barrels; 1903, 2,250,000 barrels; 1904, 1,850,000 barrels; 1905, 1,200,000 barrels; 1906, 550,000 barrels.

We thought the matter of sufficient importance to write the Department of Agriculture on the subject, and invite their correction of the figures. In reply, we have the following letter from Prof. B. T. Galloway, the Chief of the Bureau of Plant Industry, on the subject:

Washington, D. C., Nov. 17, 1906.

Mr. J. F. Jackson, Editor Southern Planter,
Richmond, Va.

Dear Sir:—Replying to yours of the 8th inst., in which you call attention to the apparent discrepancy between the commercial estimates of the apple crop of Virginia during the past five years and the known facts regarding the development of the apple industry in your State during that time, I regret that no official statistics of the apple crop of Virginia later than the census of 1900 appear to be available. The Pomologist in charge of Field Investigations, to whom the matter was referred, has consulted the Census office and the Bureau of Statistics of this Department with the above mentioned result. You are, no doubt, aware that the census of 1900 gave a total yield of apples in Virginia for the crop of 1899 of 9,835,982 bushels. Counting three bushels to the barrel, this would be approximately equivalent to 3,278,660 barrels, which is considerably larger than the largest commercial estimate of the crop that you call attention to, being considerably larger than the estimated crops of 1903 and 1905, which are generally considered the heaviest crops yet produced in the State.

In the absence of other statistical data on the crop, we have compared the tabulated statistics of the shipments of Virginia apples as compiled by Prof. Wm. B. Alwood, and published in Bulletins 101 (1899) and 151 (1904), of the Virginia Agricultural Experi-

ment Station for the years 1897 and 1899 to 1903, inclusive. These figures, which are quoted below, indicate that the actual shipments in the census crop year and those in other years for which the figures are available fall very far below the census figures, and the commercial estimates for the corresponding years.

1899, Census, 3,278,660 barrels.
Shipments, 212,473 barrels.
1900, no estimate available.
Shipments, 27,195 barrels.
1901, no estimate available.
Shipments, 205,337 barrels.
1902, Estimate, 2,500,000 barrels.
Shipments, 21,052 barrels.
1903, Estimate, 2, 250,000 barrels.
Shipments, 327,484 barrels.
1904, Estimate, 1,850,000 barrels.
Shipments, No figures available.
1905, Estimate, 1,200,000 barrels.
Shipments, No figures available.
1906, Estimate, 550,000 barrels.
Shipments, No figures available.

We, of course, recognize that the census figures and the commercial crop estimates are supposed to cover the entire apple crop, including summer, fall and winter apples, utilized in various ways on the farm or delivered to the retailer or consumer from the farmer's wagon. They also include all the apples that were converted into cider, vinegar and other products, including dried and evaporated fruit. The statistics of the shipments are, of course, restricted to such fruit as was actually transported by the railroads in a fresh state, either in packages or in bulk.

The discrepancies between the two sets of figures appear too great, however to admit of any other explanation than that one or the other is incorrect, and we are inclined to the opinion that the statistics of shipments rest upon a sounder statistical basis than either the census figures or the commercial crop estimates. From the known facts in relation to the development of apple orcharding in Virginia during the past fifteen years, it can hardly be doubted that the present production in the crop year is greater than at any former time, though statistical proof of this appears to be lacking. The question is of such importance to the fruit industry that we are taking it up with a view to ascertaining whether it is possible to secure data upon which a more accurate estimate of the crop can be based, or, at least, all that portion of it which is marketed in the fresh state.

B. T. GALLOWAY, Chief of Bureau.

We invite the attention of the Virginia State Horticultural Society to this subject, and shall be glad to have their assistance in the formulation of some system of apple crop reporting, which shall do justice to this important State interest. Whatever tends to lessen the importance of this industry in the eyes of the people of the country at large directly lessens the returns which our growers may expect to receive for their crops. If it is allowed to go before the apple buyers of the country that we have little or no fruit to sell we shall certainly not be likely to have that active competition for our fruit which alone can secure growers a satisfactory return for their labors. We are glad to see that the National Department of Agriculture is prepared to co-operate with us in the movement for securing more accurate statistics.

THE VIRGINIA STATE HORTICULTURAL SOCIETY.

The annual meeting of the Virginia State Horticultural Society will be held in the hall of Murphy's Hotel, in the city of Richmond, on the 18th and 19th days of December current. The sessions will commence at 11 o'clock on the morning of the first named day. Prof. W. W. Tracy, of the Department of Agriculture, Washington, will speak on Garden Vegetables and the importance of the farmer's garden. Prof. Gould, of the Department, will speak on A Succession of Fruit Crops, and Mr. Eustace, of Washington, will discuss the question of Resultant Injury to Fruit from Careless Picking and Packing. Other gentlemen and members of the Society will speak on topics of interest to fruit growers and horticulturists. It is hoped that there will be a large gathering of the members of the Society and their friends. It is important that this should be so, as the growing importance of fruit production in the South demands the most earnest consideration of our people. Do not fail to attend and bring your friends with you. Further information can be had from Mr. S. L. Lupton, the Secretary of the Society, Winchester, Va.

PRESERVING CABBAGE FOR WINTER USE.

The favorable fall growing season has resulted in the production of a much larger crop of fall cabbages than is usual in most sections of the South. Much of this crop will necessarily be lost if means are not taken to save and store the same for use during the winter. In the Tidewater and Eastern sections of

this and the adjoining States, the heads may be saved with very little trouble and cost. As soon as the growth is completed the plants should be heeled over with the heads to the North. This can be done by plowing out a furrow on the North side of the row and then running the plow under the plants on the South side just near enough to the row to heel over the heads into the furrow opened out on the North side. Press them down into this furrow and throw a light furrow on to the heads. This work should be done when the heads are dry. In other sections, where more severe wintry weather may be expected, the cabbages should be pulled up by the roots and taken to a piece of high, dry ground and there be piled with the heads down and the roots up in rows close together. After the first layer is completed, then commence another layer on the top of the one laid down, filling the heads in between the upstanding roots, and so continue until a conical pile is made. This should then be covered with straw sufficient to keep out the frost, and on this earth be laid to keep the straw dry and water out of the pile. All this work should be done when the heads are dry and cool. In this way they will keep well right through the winter. All decayed and loose leaves should be removed before piling the heads together.

APPLE BITTER ROT.

In a recent bulletin, the Agricultural Department gives a good deal of attention to "Apple Bitter Rot." This disease is more or less prevalent in all the country east of Kansas and Texas, and has been especially destructive in a broad belt from Virginia to Oklahoma, and it has been extending its area for several years, and increasing in its destructive powers on the apple crop. The Department estimates that the loss to apple growers from this disease in 1900 reached a total of \$10,000,000 throughout the country. The disease is due to a fungus. The first signs of the bitter rot on the apple is seen in a slight light brown discoloration under the skin of the fruit. The spots rapidly increase in size, and although the fruit is seldom entirely destroyed, it is rendered almost worthless.

The Department has been much interested in this disease, and has been conducting a series of experiments looking to its eradication. Mr. W. M. Scott, of the Bureau of Plant Industry of the Department, carried on extensive experiments in spraying in an orchard in Virginia, last year. He used the Bordeaux mixture composed of five pounds of copper sulphate, five

pounds of lime and fifty gallons of water. He demonstrated that the disease can be controlled by four applications of the mixture, if applied at the proper time, and in a thorough manner. He says the first application should be made about five or six weeks after the trees are in bloom, followed by others at an interval of two weeks. He claims to have saved from 93 to 98 per cent. of sound fruit on the trees while on adjoining trees not sprayed the fruit was a total loss.

THE CORN CROP OF 1906.

The gigantic strides corn has been making within the last few years, both as to the acreage planted and to total output, is attracting wide attention, and the query is being made, if corn and not cotton is to be king in this country. According to the latest statistics, the area this year was 1,500,000 acres greater than ever before, the total being 95,535,000 acres, and it is estimated the crop will reach the enormous amount of 2,881,000,000 bushels, of a value, according to the market price, of \$1,215,000,000. If the State of Connecticut should start out to buy up the corn crop of this year, it would take the entire property value of the State, and then she would have to borrow nearly \$20,000,000; if Maryland entered the field, she would have only about \$100,000,000 left; while Virginia would have to go into the market as a borrower to the tune of \$110,000,000. These figures are given to show, by comparison, the enormous wealth of the corn-producing belt.

The corn story of the country is one well worth writing, and it is well worth the reading. Only once before in the history of the cereal has the average crop per acre reached as high as this year—30.2 bushels, and that was in 1878, when it was 30.8. It was in 1872 that the product first reached the billion bushel mark. The increase in the acreage that year was phenomenal, brought about by the opening of the great West by the railroads, and bringing into cultivation vast tracts of the rich prairie lands of that section. Since then the crop has grown to three times the yield and four times the market value.

Since 1897, a period of nine years, we have added more than fifteen million acres to the corn area of the country, and it is confidently predicted that in five more years we will have full one hundred million acres in the great national corn field. At the close of the Civil War the corn acreage was thirty-four million acres. By 1872, when the crop first reached the billion bushel record, the acreage had increased to 40-

000,000 acres. Three years later it had gone up to 50,000,000 acres, and by 1880 there were over 60,000,000 acres under corn cultivation. In 1885 the yield reached the two billion bushel mark, on 73,000,000 acres. This was high water mark, both in yield and acreage. It was a period of renewed railroad building over the West, and the rapid settlement of that great agricultural section. The wonderful march of the agricultural West in the decade from 1875 to 1885 will long be remembered. From 1885 to 1904 the acreage did not vary much, but in the latter year it made a jump of 20,000,000.

There had been several attempts to introduce our corn as a food product into Europe, but the attempts did not meet with any great success. It was these attempts that gave, for a time, a stimulus to the raising of corn. This stimulus did not last, but another factor entered, and corn went climbing up in the area covered by its cultivation. The sudden turn in the fortune of this great American cereal can be readily traced, and its phenomenal development is wholly owing to a change in the conditions here. The disappearance of the ranch system of cattle growing, forced by the taking up of the public and railway lands by actual settlers, has caused a demand for American corn, for animal feeding purposes, and this demand will in all probability increase, and corn growing continue to be a prominent factor in American farming. Another interesting feature of this increased demand for corn is the remarkable steadiness of the market price.

AVERAGE YIELD OF TRUCK CROPS IN TIDEWATER VIRGINIA AND EASTERN NORTH CAROLINA.

We are often asked what is a fair average yield of the various truck crops grown in the trucking sections of these two States.

The following may be taken as fair averages:
Irish Potatoes—50 to 125 barrels per acre.
Cabbage—150 to 200 barrel crates per acre.
Beans—150 to 250 bushel baskets per acre.
Peas—100 to 200 bushel baskets per acre.
Tomatoes—200 to 400 bushel baskets per acre.
Cucumbers—300 to 700 bushels per acre.
Lettuce—1,000 to 1,200 1-2 barrel baskets per acre.
Asparagus—40 to 75 crates per acre.
Strawberries—75 to 150 crates per acre.

Of course, there are frequently larger individual yields, such as 1,000 to 1,200 bushels of cucumbers per acre; 1,500 to 1,600 baskets of lettuce, and 500 to 600 bushels of tomatoes.

Live Stock and Dairy.

BUYING CORN FOR STOCK FEEDING— COST OF PRODUCTION OF CORN.

Editor Southern Planter:

I will endeavor to answer Mr. Robert Hibbert's question in the last issue. I think he has discussed a very important feature in farming—the question whether one can better afford to buy corn (shelled) at 50 cents per bushel and feed it to hogs than can the raiser of said corn; or, in other words, what is the cost per bushel to raise corn and how much does a man clear for his feeding if he buys corn at 50 cents per bushel and feeds it to hogs.

I fattened a lot of hogs (24 in number) last fall on new corn and some middlings. I began feeding corn on the 20th of August and fed for a period of 55 days, and each hog averaged in gain per head per day a fraction over two pounds. When I sold these hogs, they averaged 224 1-4 pounds. I priced these hogs at four cents per pound at beginning of the feeding period; when I sold them as pork, they were about one cent per pound lower last year than they were this—I got five cents per pound. I fed about 40 barrels of corn to these hogs and some thick middlings slop. After taking out the cost of the middlings (which was very little, as I only fed it once a day for a few days), I figured that I got 75 cents per bushel for my corn.

Now, as to the cost of the production of a bushel of corn. I planted a field this year containing 42 acres, and as we have had a rather wet season, and I manured a good deal of the thinnest land, which had about the best corn in the field, I think the field will average about ten barrels of corn (ears) per acre. I have shucked a good deal of it already. At anyrate, we will say 10 barrels or 50 bushels per acre. In order to get accurately how much it costs to raise a bushel of corn, we must figure in all the expenses. I will take as my basis that a man and his board will cost 75 cents per day, and that a horse and his board will cost 75 cents per day. I tried to keep track of just how much time was spent in our corn field this year, and it was as follows:

Twenty-five days to plow 42 acres, ten inches deep on the average, with a 3-horse plow, \$75.00. Nine days spent harrowing. I harrowed it three times, \$27.00. Four days spent rolling. I rolled it twice, \$12.00. Five days spent in marking off both ways,

three rows, 3 ft. 10 in., at one time, \$11.25. Three days spent in planting with corn and re-planting with three hands, \$6.75. Fifteen days spent in plowing corn five times with three hands. When I used double shovel plows at the two first workings, it took a little over three days for each plowing, but when I used cultivators at the last three workings, they got over it in less time, \$67.50. Nine days spent with two hands in cutting 440 shocks with corn cutter, including tying, straddles, etc., \$20.25. Twenty days spent with two hands snapping 22 shocks per day, \$30.00. Nine days spent with four horses and two men hauling in corn, \$40.50. Six days spent with four horses and three men shucking 72 shocks per day, \$31.50. Total cost in producing 2,100 bushels of shelled corn and 440 shocks of fodder, \$321.75.

If shelled corn is worth 50 cents per bushel, 2,100 bushels is worth \$1,050.00. If fodder in rick is worth 25 cents per shock, 440 shocks are worth \$110. The total value of corn and fodder at market price is \$1,160.00.

Hence, if above figures are true, and you leave out wear on machinery and cost of land, etc., it will cost only slightly over 15 cents to produce a bushel of corn.

However, even at this cheap production, I would not sell corn at 50 cents per bushel if I had cattle or hogs to feed it to, as I believe I get sixty cents or over for every bushel fed.

Rappahannock Co., Va. TOWSON E. SMITH.

BEEF PRODUCTION—GETTING CATTLE ON FEED.

Copyright, by H. W. Mumford.

The season for profitably running cattle on stalk fields has passed and all over the corn belt where cattle feeding is a prominent feature of agricultural practice, thought is turned toward getting cattle on feed. This is no less a problem at this season outside the corn belt where the running of stock cattle on stalk fields is practically unknown.

It not infrequently happens that steers intended for the feed lot are left to roam about the stalk fields longer that it is profitable to do so. Feeding cattle should be taken from stalk fields and pastures before they cease thriving under such management. How the steer should be handled subsequently will depend

largely upon the age, grade and condition of the steers, when they are to be marketed and the most available feeds.

The majority of cattle now coming from pastures and stalk fields will not be finished for market in less than 150 days, while many of them will be carried through the winter on rough feed as cheaply as possible and turned to grass in the spring at a time when they are practically on full feed.

The cattle which are to be marketed after being turned to grass in the spring should be handled differently than those that are to be sold earlier.

Those who are familiar with cattle feeding practice know that there is much difference of opinion as to the length of time which should be employed in getting cattle on full feed. The majority of cattle feeders, I believe, practice a system of feeding which involves the getting of the cattle on full feed in from ten days, as the minimum, to thirty days, as the maximum length of time. The minority take what appears to be a more rational view of this question and use from thirty days, at the least, to sixty days, at most, for getting cattle on feed. Both methods have their advantages and disadvantages which, at present, must be stated more as opinion than as a result of deductions from actual experiments covering a comparison of these methods, although at the Illinois Station both of these systems have been tested and there is an experiment now in progress at the Station referred to enquiring into this very question. First, it should be said that both methods are followed with varying success. Cattle may be put on full feed in from fifteen to thirty days without apparent injury. The advantage of this method is a saving in time or a shortening of the feeding period. It contributes to larger gains during the first part of the feeding period and, taking the whole feeding period together, it is believed to induce a larger consumption of concentrates and a consequent smaller proportion of roughages. With this system of feeding, the gains grow smaller and more expensive during the latter part of the feeding period, provided the same extends five months or more of full feeding and provided aged rather than young cattle are involved.

In dealing with short fed cattle, getting cattle on full feed in fifteen to twenty days is undoubtedly advisable, but if cattle are to be in the feed lot six months, they can be given a very creditable marketable finish where thirty to forty-five days of that time are employed in getting them on full feed. The advantages of this method are: The steers' ration

is at first made up of such bulk as to permit of the steers' eating all they wish without any danger of getting the cattle off feed or deranging the digestive organs. The grain ration is so gradually increased that the steers become accustomed to handling a heavier and more highly concentrated ration. This method is safer in the hands of the novice. Gains are not so large during the first part of the feeding period as they are where cattle are put on feed more rapidly, but they are still economical as viewed from the standpoint of feed consumed to produce this gain. As the feed is increased slowly and regularly, the gains increase with the extent and concentration of the ration until the gains during the last sixty days of a six months' feeding period are just as large and frequently as economical as at other periods during the fattening process. Steers so handled can be more safely carried beyond the time planned to market them in case occasion seems to warrant such holding than they can where started more quickly.

When thirty days to six weeks are employed in getting cattle on full feed, the cattle so handled very seldom consume the large amounts of corn and other concentrates reported by cattle feeders who practice getting cattle on feed more rapidly. The gains made per unit of food consumed compare very favorably with the quick feed method even though a larger proportion of the ration consists of roughage. The end and aim of the cattle finishing process is, I take it, to get marketable finish at the least cost, considering cost of feeds used and interest on investment. Economical gains contribute very largely to bringing about this result and is, in fact, a more important factor than a little extra time, which may be required by getting cattle on feed in a more rational manner. With good alfalfa or clover hay used as roughage, it is undoubtedly better practice to get cattle on full feed more slowly than where corn stover, timothy hay, or straw constitute the roughage. Again, if, for any reason, it is desirable to get cattle on feed quickly, the supplementing of corn with some nitrogenous concentrate, like ground linseed cake (oil meal), gluten, or cotton seed meal, is recommended. Granting that not less than thirty days are to be used in getting cattle on full feed, the writer would feed the cattle all the clover or alfalfa hay they would eat up without waste and, in addition, start with two pounds corn per steer per day, increasing the corn at the rate of one pound per steer per day until each steer receives ten pounds corn per steer per day. This ration of corn should be continued for three

days and then another increase of one pound made. From this point on, an increase of one pound per steer per day every third day will bring the cattle up to seventeen pounds corn each per day in thirty days. By continuing this rate of increase for fifteen days longer, the steers will be getting 22 pounds each per day. If oil meal or other nitrogenous concentrates are used at the rate of about three pounds per 1,000 pound steer per day, this ration will prove quite satisfactory. When the cattle begin to get about 12 to 15 pounds corn per steer per day, they will not require or relish as much roughage, and at the end of thirty days, should not be given to exceed 12 pounds clover or alfalfa per 1,000 pound steer per day. As the feeding period progresses the amount of roughage fed should constitute about one-fourth of the ration by weight.

HERBERT W. MUMFORD.

Urbana, Illinois.

DOES IT PAY TO BUY FEED AND RAISE HOGS AT PRESENT PRICES?

Editor Southern Planter:

In answering this question, as the hog killing time is near at hand, I will try and get at the cost of raising a pig from weaning, say, at two months old, farrowed March 1, and killed December, when from nine to ten months old.

I choose March 1st for birth, and the spring, summer and fall for raising to maturity; as during that period it can be done at least cost, as the hog has the grazing until frost comes, and then the run after the acorns, chestnuts and other fruits of the forest, before being penned for four to six weeks, as the final preparation for the butcher.

In getting cost of raising this experimental hog, I shall have to use grain and shall fix on millfeed corn meal and corn.

In order to be on the safe side in prices, I shall value millfeed at \$1.25 per 100 lbs., or 1.25 cents per pound; corn meal, 75 cents per bushel, or 1 1-2 cents per pound; corn, 50 cents per bushel of 56 pounds. From two to six months old the pig will be fed a mixture of two-thirds millfeed, and one-third corn meal, afterwards whole corn will be used, and finally, on being penned, two-thirds to one-third millfeed will be the ration used.

To simplify matters, however, in working out my figures, I shall use the two-thirds millfeed and one-third corn meal mixture only.

I shall now refer to that wonderful production in farm literature, Feeds and Feeding, by Professor Henry, a book that should be in the hands of every farmer and stock raiser, and the new reader will wonder why he has not been in possession of the work years ago.

The information it contains is invaluable, and the summary and results of experiments at the various Agricultural Stations is stated briefly and plainly so that everybody can understand.

At eight weeks old, a pig should weigh about 28 pounds (page 540). At from 15 to 50 pounds in weight it takes 293 pounds of grain to make 100 pounds gain in a pig, and 498 pounds of grain to make same gain in one growing from 200 to 250 pounds in weight.

The average grain required to make 100 pounds gain, from 15 to 50 pounds, to 200 to 250 pounds in a pig is 422 pounds. Therefore, to make my pig weigh 250 pounds at 422 pounds grain per 100 pounds, will require 1,055 pounds of grain feed. The cost will be as follows:

1-2 corn meal,	350 lbs.,	at 1 1-2 per lb.	5.25
2-3 millfeed,	705 lbs.,	at 1.25 per lb.	\$ 8.80

1055 lbs.	•	\$14.05
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A 250 pound pig costing \$14.50 equals 5.58 cents, or nearly 5 3-5 cents per pound. This, of course, means being raised exclusively on grain, and at retail store prices of to-day.

I shall have some deductions to make: The amount of green forage eaten by pigs in good pasture is about sufficient for their support.

At the Utah Experiment Station, four years' trial of pigs confined in small pens required 92 pounds more grain to make 100 pounds gain than pigs allowed exercise and run of pastures. (Page 549.) My pig has had plenty of exercise and the best of feeding in pasture and forest, so I can safely make a reduction in the cost of feeding of 92 pounds per 100 pounds. My pig weighs, namely, 250 pounds, which will be 230 pounds of grain at 1.33 cents per pound, making \$3.05.

In addition to this Prof. Henry values fertilizing constituents in the form of nitrogen, phosphoric acid and potash, in one ton of wheat bran at \$13.48 per ton, and in the same weight of corn at \$6.74.

I will be conservative and value fertilizing constituents in 2,000 pounds millfeed at \$10, and corn at \$6 per ton. 700 pounds millfeed pig consumed will contain fertilizing constituents valued at \$3.50



"RED CLOUD" AND "RUBERTRESS," owned by Burke's Garden Cattle Co. Photo by Joseph E. Wing at Virginia State Fair.

and 350 pounds corn meal at \$1.05. I shall therefore have a second deduction to make from original cost of feed of \$4.55.

Let us now sum up:

Cost of 250 lb. pig, all grain,.....	\$14.05
Less feed from pasture and forest....	\$3.05
Less fertilizing constituents contained in food consumed.....	\$4.55
	\$ 7.60

\$ 6.45

Now, let me see what my pig has actually cost me. 250 pounds costing \$6.45 equals 2.58 cents per pound, or \$2.58 per 100 pounds. The American Swineherd, October 1, 1906, in its report of Chicago hog market, quotes average price of hogs on that day at \$6.47 1-2.

I am not in this article going into the question of interest on capital, labor, etc., but net actual cost of feed given the pig only. If my figures are correct, it appears to me, even buying my feed for fattening hogs is a satisfactory business, and if the editor of the Southern Planter wishes for a letter on cost of keeping a sow and raising a pig two months old from her, I shall be glad to write and state my views on that question also.

Albemarle Co., Va.

ROBERT HIBBERT.

Yes. Please give this information.—Ed.

GUERNSEYS AS MILK AND BUTTER PRODUCERS.

Imp. Itchen Daisy, 3d 15930. Adv. R. No. 100.

13686.8 lbs. milk; 714.1 lbs. butter fat.

Imp. Itchen Daisy 3d 15930, Adv. R. No. 100, who made a most creditable record as a two year old—9958.7 lbs. milk; 553.83 lbs. butter fat—which

placed her at the head of her class, has just completed another year's test, which places her at the head of the four and one-half year old class, she gaining that position by 700 pounds milk and 9 pounds fat. She is the first cow to have the distinction of standing at the head of two classes in the Register.

She calved September 8, 1905, and commenced her record on the 13th and made the following record, supervised by the New Jersey Agricultural Experiment Station. (Record from Sept. 13, '05 to Sept. 12, '06.)

	Ibs. milk	% but. fat	lbs. but. fat
Sept., '05	729.90	5.80	42.33
Oct.,	1325.35	4.60	60.97
Nov.,	1236.45	5.10	63.06
Dec.,	1256.90	5.30	66.62
Jan., '06.	1240.45	5.30	65.74
Feb.,	1102.25	5.30	58.42
Mar.,	1168.65	5.30	60.77
Apr.,	1127.95	5.20	58.65
May.,	1198.75	5.30	63.53
June.,	1033.70	5.50	56.85
July.,	1022.85	4.91	50.22
Aug.,	869.90	5.50	47.84
Sept.,	323.70	5.90	19.10

Total	13636.80	5.24 Av. %	714.10
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Her requirements were 9471.15 pounds milk; 345.6 pounds butter fat.

Imp. Itchen Daisy was bred in England. Her sire was May Day, E. G. H. B. 1132, and dam Daisy's Gem, E. G. H. B. 3341. She was imported by Mr. H. McK. Twombly and made both her records at Florham Farms, Madison, N. J. She



SHORTHORNS AT VIRGINIA STATE FAIR. Photo by Joseph E. Wing, of Breeder's Gazette.

has just been sold to Mr. F. Lothrop Ames, North Easton, Mass., for \$4,000, the largest price ever paid for a Guernsey cow.

During her recent test, her feed was as follows:

Sept., '05—21 lbs. gluten, 47 lbs. bran, 5 lbs. wheat

mids., 3 lbs. linseed meal, 3 lbs. cottonseed.

Oct.—99 lbs. gluten, 11 lbs. bran, 24 lbs. wheat

mids., 13 lbs. linseed meal, 13 lbs. cottonseed.

Nov.—120 lbs. gluten, 120 lbs. bran, 30 lbs. wheat

mids., 15 lbs. linseed meal, 15 lbs. cottonseed.

Dec.—124 lbs. gluten, 124 lbs. bran, 32 lbs. wheat

mids., 15 lbs. linseed meal, 15 lbs. cottonseed.

Jan., '06—124 lbs. gluten, 124 lbs. bran, 32 lbs.

wheat mids., 15 lbs. linseed meal, 15 lbs. cot-

tonseed.

Feb.—75 lbs. Ajax, 94 lbs. bran, 28 lbs. wheat mids.,

37 lbs. oil meal, 9 lbs. cottonseed, 37 lbs. corn

meal.

Mar.—45 lbs. Ajax, 100 lbs. bran, 29 lbs. bu. mids.,

40 lbs. oil meal, 9 lbs. cottonseed, 40 lbs. corn

meal, 17 lbs. oats.

Apr.—108 lbs. Ajax, 53 lbs. bran, 40 lbs. bu. mids.,

13 lbs. oil meal, 13 lbs. cottonseed, 60 lbs.

bran slop, 13 lbs. corn meal.

May—106 lbs. Ajax, 53 lbs. bran, 40 lbs. bu. mids.,

61 lbs. bran slop, 13 lbs. corn meal, 13 lbs. oil

meal, 13 lbs. cottonseed meal.

June—58 lbs. gluten, 89 lbs. bran, 29 lbs. bu. mids.,

58 lbs. oats, 43 lbs. oil meal, 15 lbs. pea meal.

July—55 lbs. gluten, 90 lbs. bran, 27 lbs. corn meal,

55 lbs. gd. oats, 41 lbs. oil meal, 15 lbs. pea

meal.

Aug.—124 lbs. bran, 124 lbs. Ajax flakes, 31 lbs. oil

meal, 31 lbs. cottonseed meal.

Sept.—35 lbs. bran, 21 lbs. Ajax, 15 lbs. oil meal, 11

lbs. wheat mids., 11 lbs. oats, 11 lbs. corn

meal, 10 lbs. cottonseed meal, 6 lbs. pea meal.

STOMATITIS (Sore Mouth).

The term "Stomatitis" signifies an inflammation of the mucous membrane lining of the mouth. All domestic animals are subject to this condition from varying causes; the occasion for this article, however, being the severe and widespread outbreak now existing among cattle throughout central and eastern Virginia.

Causes: These may be classed as mechanical, chemical, microbial and other irritants (Law). Injuries to the mucous membrane are frequently traced to thorns, briars and other such substances taken in with the food, wounding the membrane, making favorable entering places for micro-organisms, the action of which (through their toxic substances) is to produce inflammation. Fodder contaminated with fungi is among the most fruitful causes; and is one which is most probably responsible for the present serious outbreak. *Aspergillus* (White Mold), *Ergot* and *Puccinia Graminis* (Rust), having been found by the writer in the relative proportions as they are named; their existence having been favored by the wet season and absence of sunlight. Red and white clover, trefoil, hybrid and purple clover and alfalfa have all been known to produce it; though in most cases such foods have been the host of bacterial ferments. Many other causes might also be named if space permitted, these being, in the writer's opinion, the only ones deserving space here.

Symptoms: These vary according to the degree of inflammation. At first the animal is noticed to be dull and grunting; the early, congestive stage is marked by dryness of the mouth and redness of the gums, tongue and cheeks; this stage having passed, ptialism (profuse salivation) becomes a marked feature: the animal is seen to keep working the jaws, causing a smacking noise, with frothy mucous collect-



RED POLLS AT VIRGINIA STATE FAIR. Photo by Joseph E. Wing, of Breeder's Gazette.

ing about the mouth. Upon closer examination, the mucous membrane will be found detached in larger or smaller patches, leaving an excessively red and painful condition. A disagreeable odor is also present frequently; emaciation becomes rapid, the animal being unable to feed; marked fever and stiffness accompanies severer cases, and death from starvation is far from uncommon.

Treatment: Remove afflicted animals from such pastures as have produced it; provide nutritive food, which must be sloppy or soft, boiled roots, bran and ground oats and corn made into mash. Pure water in abundance is very important. Among medicinal agents, there is a large group which give favorable results. Probably none can be selected which can modify the condition more than freely washing out the mouth two or three times daily with a warm one per cent. solution of creoline, to be followed after each washing by the following mixture applied to the denuded surfaces with a swab of cotton tied on a small stick. Chlorate of potash, 4 ounces; tincture of iron, 4 ounces; glycerine, 6 ounces; water, one gallon.

Another wise choice may be made for the second dressing in one-half ounce each of borax and alum to the quart of water; but removal from the exciting cause; nutritive, sloppy food, and cleanliness of the parts are imperative.

JOHN SPENCER, Veterinarian,
Experiment Station, Blacksburg, Va.

HOG FEEDING.

In an experiment made at the Experiment Station Purdue University, Indiana, in feeding a lot of hogs the following conclusions were reached:

1. Soy beans proved to be a very valuable adjunct to corn, being the most efficient food tested.

2. Pigs fed a ration of one part soy beans to two parts corn produced two and one-fifth times as much gain in the same length of time as did those receiving corn only.

3. It required 310 pounds of feed per 100 pounds of gain, where one-third of the ration was soy beans while it took 557 pounds per 100 pounds of gain where corn alone was fed.

4. Comparing the soy bean ration with the middlings and tankage rations, the amount of feed required per 100 pounds gain stands soy beans and corn, 310; middlings and corn, 343; tankage and corn, 330 pounds.

5. Corn meal alone was shown to be very inefficient as a pork producer.

6. The pigs receiving a ration of one-third soy bean meal and two-thirds corn meal produced 402 pounds gain. A ration of one-half middlings and one-half corn meal produced 365 pounds gain. One-sixth tankage and five-sixth corn meal produced 348 pounds gain, while a ration of corn meal produced only 183 pounds gain. Stated in another way, corn meal alone produced less than one-half the gain made by a ration of one-third soy beans and two-thirds corn, one-half as much as middlings and corn, and but little more than one-half as much as tankage and corn.

7. Corn meal alone impaired the digestive capacity of the pigs, as shown by the feed consumed, which was 320 pounds less than any other lot consumed.

8. The longer the pigs were fed on corn alone, the more inefficient it became, requiring 1,214 pounds of feed per 100 pounds during the last week of the test, against 500 pounds the first week, and an average of 557 pounds.

9. Corn meal alone produced poor appetites, light bone, deficient development in valuable portion of the

carcass, and a genral state of unthrift, as shown by the hair, skin and hungry look of the animals.

10. The gains on pigs fed under the conditions of this test cost \$5.01 per 100 pounds, where corn meal

alone was used; \$3.44 with one-half middlings; \$3.59 in the lot receiving two-thirds corn meal and one-third soy bean meal, and \$3.71 where five-sixths corn and one-sixth digester tankage was fed.



DEVON HERD, BRED AND REARED IN GEORGIA.

SOME OBSERVATIONS ON THE CATTLE INDUSTRY IN THE SOUTHERN STATES.

Editor Southern Planter:

There have been many ups and downs in the cattle industry of the South in recent years. Dairying has always proved profitable and successful for farmers living near the large cities, and in late years very fine dairy cattle have come into all the Southern States. It is well known that Jerseys, Guernseys and Holsteins have done well in the South, even in sections where the fever tick has played havoc with beef cattle. Some dairymen insist that the tick is a great menace to their business, and I can well believe that cows that must go through with this fever are never in their highest health, and it may be that the weakening of the constitution cuts off the flow of milk to great degree; but, nevertheless, there are large herds of dairy cattle in the South that have had the ticks on them and the mortality is slight. The cows are harder to keep in condition, but actual losses of valuable animals are rare.

Now, dairying is not suited to the farmer class in general, especially those far from the centres of trade, for creameries in the South have not as yet proven a general success. It is natural that the ordinary farmer desires to help in the production of beef and feels that this should be profitable and far more suitable to one not near the markets. Hundreds of enthusiastic stockmen have turned to beef production. They have determined to get the best beef stock, and hence have introduced pure-bred Shorthorn, Hereford

and Angus cattle into the Southern States. Their efforts have been attended with loss very generally, because of the cattle tick. Immune cattle have been tried with some success, but this means of introducing beef cattle seems too slow. It is a fact that most of the men who have tried bringing the beef breeds down South have failed. It does seem most unfortunate, when you consider the fine pasturage of the majority of the counties of Tennessee, western North Carolina, northern Georgia, and southern Virginia. When these counties are above the fever line, they are all right. The work of the Department of Agriculture at Washington, and the work of certain Experiment Stations has done much to push the fever line farther South, but it still remains a fearful fact to all who would raise beef cattle. Let the good work go on, for the day must come when the intelligent people of the South will have conquered the tick. Till that good day comes, the Southern farmers are going to investigate the cattle breeds to find which will give best results.

It shall be my pleasure to present certain facts that have come to my notice that may help in this investigation. First of all, we will all agree that you must get dairy cattle for the dairy. It is best to get highly bred cows of these breeds and keep them up to the best types, but it is almost useless to expect any development of the beef industry along these lines, for the bull calves of dairy cows are disposed of at birth and only a few of the heifer calves escape early destruction. Thus, the country is stripped of its cattle.

It is getting so now that one can travel for hundreds of miles through these Southern States without seeing any cattle. Only an occasional cow grazing around a farm house catches the attention.

Nor can you wonder at this, for so frequently have whole herds of beef cattle been destroyed by the fever. I was instructed in starting one herd of Shorthorn cattle in Georgia. Five months later only one of a dozen head remained to tell the tale of disaster, and this one was only a runt. Not far away a herd of Aberdeen Angus travelled the rapid transit to cattle paradise, and no less than a dozen attempts to introduce fine Herefords met with the same fate. Now, I have confidence that these grand breeds will be of value to the South in the early future, but at present it appears that they are as toothsome to ticks as to men, so they succumb very readily.

There are, however, three breeds of cattle that promise to be valuable to the growers of beef in the South that seem to stand the ticks better than the true beef breeds. They suffer from the ticks as do dairy cattle, but actual losses are rare. These breeds are the Ayrshire, the Devons, and the Red Polls. I have seen cattle of all these breeds in Tennessee, Georgia, North Carolina, and Alabama, and they seemed to be thriving well with ticks on them. Of course, they were not as fat as cattle should be, but they looked to be good enough to try. The three breeds are in that class that is recognized as dual-purpose. Often the cows are very strong milkers and there is fair beef conformation. Of these the Ayrshire is somewhat the roughest breed and not large. The Devons are beautiful cattle of dark red color with very long horns. They are small, but quite good in beef type, and very hardy.

I have visited two or three herds of Devons in Georgia and find them in good condition, considering the feed and pasture. (People down this way are slow in learning the methods of feeding beef cattle.) A photograph of a herd of Devons at the late Atlanta Fair shows some very neat cattle that were born and bred in Georgia. They are not fat, but thriving. They had ticks on them when photographed. I have visited with interest three herds of Red Polls in Georgia and one in Tennessee, all below the fever line. The cattle had plenty of ticks on them and some showed evidence of weakened constitution, a few died from the fever, but over ninety per cent. of this breed has passed through the fever and come into fair health. I saw in one Georgia herd some very beauti-

ful heifers that would make excellent beef in any market. The cows were often strong milkers and vindicated the claims of the promoters of the breed that the Red Polls are good general purpose cattle. They have shown themselves to be hardier than Shorthorns, which breed they most resemble, and they promise to be used very largely by the small farmers of the middle sections of the South while the tick war is being waged. The Red Poll is a very beautiful animal, deep red in color, hornless, not quite as large as the Shorthorn, and a very fine rustler. A photo-



GEORGIA BRED RED POLLS.

graph of two heifers at the Atlanta Fair shows a pair born and bred in Georgia and past all danger of ticks. The Red Polls are becoming quite popular in North Carolina, where, on the border, the cattle industry is taking fresh spurt, and I judge the breed will grow rapidly in popularity, because of the fine points of the animals, also because they cross well with native cattle, dehorning about 95 per cent. of the calves produced by the cross, and improving the stock for beef.

It shall be my pleasure to follow with interest the progress of these three admirable breeds of cattle in the South. It would seem that it is best for Southern farmers to buy calves, as they appear to stand shipping better and pass through the changes of climate with less trouble.

The cattle men of the South must stand together in this fight against the tick, and must seek to improve the pastures before the cattle industry can reach any successful development.

H. B. ARBUCKLE.

APTHA (Sore Mouth) IN CATTLE.

Editor Southern Planter:

Mr. E. L. Cousins, of Wise county, Va., does the farmers a great service by giving instructions for the cure of Aptha in cattle.

I take the liberty of adding some suggestions which while they may be of value, are very simple and easy

of execution. In regard to the mouth wash recommended in the article, I have always found that glycerine, added to the tincture of any resin, or gum resin—before mixing the tincture with water—aids greatly in preventing the precipitation of the gum or gum-resin in the mixture.

I would also suggest that a sulphite of soda is the recognized "death to germs" and "low-grade organisms," a solution of sulphite of soda, say about two ounces of the salt to one quart of water, could be used, perhaps alternately with the other wash to advantage.

I have long believed that copperas, fed regularly, and, of course, judiciously, to all animals, serves to brace up their systems against such diseases as the one referred to in Mr. Cousins' article.

JAMES A. BETHUNE.

District of Columbia.

BROWN SWISS CATTLE.

A subscriber who contemplates establishing a herd of Brown Swiss cattle in this State asks us to give him our opinion of the breed. Personally, we know nothing of the breed, never having kept them or being intimate with any one doing so. The breed is one from the Continent of Europe, being mainly kept in Switzerland, and the adjoining parts of France, Germany and Italy. It is highly esteemed there as a good dual-purpose animal, but in the eyes of an English breeder is a rather coarse boned animal with too little of the dairy type to be good in the pail and too much of the raw-boned type of the beef animal to make the highest priced cuts of beef. Professor Thomas Shaw, who is one of the best authorities on the dual-purpose cattle in this country, says of this breed: "Brown Swiss cattle are pretty uniformly good milkers. They have borne this character for generations. They are also good for beef production, but not quite so good, relatively, as for milk production. They are of good size and grow quickly. The steers attain to good weights, but the bone is a little strong for best results in beef making, and yet, for this purpose, they answer better than any of the straight dairy breeds. On the continent of Europe it would probably be correct to say that this breed of cows is more popular than any other." In the United States, they have only been kept for two or three generations, and breeders here have done little in the way of testing them or making their merits known to the public. The Brown Swiss cow, Brienz No. 168, in a public test in Chicago, 1891, produced 245 pounds

of milk in three days, which contained 9.32 pounds of butter fat. Good herds of Brown Swiss will, it is said, easily average 6,000 pounds of milk per year.

THE TEXAS FEVER TICK CAMPAIGN.

We are glad to learn from Dr. Cooper Curtice that the co-operative work of the Federal and State authorities in the effort to exterminate the Texas fever tick from this State is progressing most satisfactorily. The local authorities in the counties are willingly co-operating with the State authorities, and in many of the counties, the local inspectors are actively at work locating the tick infested sections and quarantining them. As a result of what has already been done, it is quite possible that a number of the counties on the Northern boundary of the quarantine line will shortly be declared free from the pest and be taken out of quarantine. Dr. Cooper Curtice is especially anxious that the supervisors of the counties of Charlotte, Lunenburg, Mecklenburg, Halifax, and Brunswick should at once take the necessary steps for the appointment of local inspectors to co-operate with the Federal and State authorities in locating the tick infested sections of those counties. If that be done and local quarantines be established and maintained, he is hopeful of securing the release of those counties from quarantine next year.

OUR JANUARY ISSUE.

In accordance with our usual custom, our next issue will be a special New Year's number. It will be a very attractive one within and without, and we are anxious to give it wide circulation. We hope our friends will send us names of parties likely to be interested, so we can send them a copy.

This issue begins Volume 68. Quite a long time to do business at the same old stand. We are doing more and better business every year. We have helped thousands of farmers to do better work. We hope to help many more next year. Our services are at your command. All you have to do is write us.

Don't forget to mention this issue to your friends. It is a fine one with which to start a year's subscription.

Nothing will take the various social distempers which the city and artificial life breed out of a man like farming, like direct and loving contact with the soil. It draws out the poison.—John Burroughs.

The Poultry Yard.

WINTER EGGS.

Editor Southern Planter:

In view of the fact that eggs are higher in price and more in demand than ever before, we are agitating our minds over the question of how to make hens lay when eggs mean money.

Having been interested in chickens for years and observing their many characteristics, I am more and more convinced that we leave them too much to themselves when most attention should be given. Pass almost any farm yard now and large flocks of tailless almost nude specimens of poultrydom regard you sleepily and look miserable in their unsightliness. With few exceptions, the farmer will say, "I don't get an egg, and these hens will eat their heads off." These conditions are the result of carelessness or ignorance. Almost any flock of chickens will gather sufficient food as long as the weather is favorable, that is, to exist upon, but few even get through moulting and lay without some aid or stimulant. I imagine this is a painful operation, and hens require special food and such as will assist in the process of moulting and formation of new feathers. I have noticed they moult more rapidly in warm weather, and thus I hasten the moult all I possibly can by giving soft feed, some sulphur, and a variety of grain in order to keep the appetite good. No hen will lay at this season of the year with her old feathers on, and little need be expected of her until spring comes, so the wisdom of the early promotion of moulting season is easily seen.

Green cut bone given twice a week is an admirable egg producer. Oyster shells also are a great help. The question of keeping hens busy cannot be overestimated; a lazy hen is good for nothing but the table. Good, warm quarters make hens very happy, and we should see that they have such before the cold weather comes. Straw or leaves make a nice scratching shed, and no house is complete without some preparation of this kind for snowy days. Give plenty of warm water and milk occasionally. Early hatched pullets make splendid winter layers, as do hens that finished moulting in October. Very old hens are unprofitable for eggs, and should be disposed of now, giving more room for busy ones.

I would like to say just a word about our poultry exhibit at the Fair. It was such a pleasure to be there and see what other people have done and are

doing. The chickens looked so happy, and seemed so well taken care of. I was a little disappointed that so few of our advertisers were represented, but am certain it was not because they didn't have stock good enough for the show room, but because the Fair was just a little too early for late hatched chickens. Such was the case with mine, and I heard others say the same. Another year let us resolve to be ready. I do hope this is the beginning, and that we may have larger and better exhibits every year. We now have better ideas of perfection, and, of course, our aim will be to produce as near perfection as possible.

MRS. JOHN F. PAYNE.

University Station, Charlottesville, Va.

POULTRY FEEDING.

To make broiler raising most profitable, warmed houses should be used and the birds raised early enough to be all marketed while high prices are obtainable. The Station does not make a specialty of broiler raising. The chickens are raised so as to obtain the pullets for egg laying. The surplus cockerels are disposed of by growing them rapidly and getting them off to market before they annoy the pullets. As the cockerels and pullets are raised together, and the cockerels only are finished and sold as broilers, it is not possible to state just how much of the food given to the flock has been eaten by the cockerels, as they were larger and evidently ate more per bird than the pullets did. The quantities of food eaten, aside from labor, have been accounted for, in the work, and the records show that when the chicks that were hatched in April and May were 11 to 12 weeks old, the cockerels weighed about 2 1-4 pounds, dressed for market. Up to this time the cockerels and pullets had each averaged to eat nine pounds of grain food, one pound of bef scrap, and one-quarter pound of grit.

When the cockerels averaged 2 1-3 pounds dressed weight, the pullets of the same age averaged 1 3-4 pounds, and as there were equal numbers of cockerels and pullets in the lot, the average weight of all the birds at that time was two pounds. Five pounds of the grain and meat foods were required to produce a pound of dressed broiler, under the described conditions and practices.

The material used in the production of a two pound broiler cost as follows:

10 lbs. of food	16.5 cents.
Oil for incubating and brooding	2.5 cents
Eggs incubated	4.0 cents.

Total 23 cents

The labor involved in raising the chick and preparing it for market is not accounted for. The average prices received for each two pound broiler last June was 60 cents; July 50 cents, and August 40 cents.

When the cockerels are taken out for finishing the pullets of the same age are moved to the grassy range, still occupying the same portable houses in which they were raised. At this time the method of feeding is changed, and dry food is kept by them constantly in troughs with slatted sides and broad, detachable roofs, so it may not be soiled or wasted. The troughs are from 6 to 10 feet long, with the sides 5 inches high. The lath slats are 2 inches apart and the troughs are 16 inches high from floor to roof. The roofs project about 2 inches at the sides and effectually keep out the rain except when high winds prevail.

The roof is easily removed by lifting one end and sliding it endwise on the opposite gable end in which it rests. The trough can then be filled and the roof drawn back into place without lifting it. This arrangement is the best thus far found, for saving food from waste and keeping it in good condition. When dry mash is used in it there may be considerable waste by the finer parts being blown away. When used for that purpose, it is necessary to put it in a sheltered place out of the high winds.

In separate compartments of the troughs they are given cracked corn, wheat, oats, dry meal mixture, grit, dry cracked bone, oyster shell, and charcoal. The dry meal mixture is of the same composition as that fed to the laying hens, described elsewhere. The troughs are located about the field in sufficient numbers to fully accommodate all of the birds.

The results of this method of feeding are satisfactory. The labor of feeding is far less than that required by any other method followed. The birds do not hang around the troughs and over-eat, but help themselves, a little at a time, and range off, hunting or playing and coming back again, when so inclined, to the food supply at the troughs. There is no rushing or crowding about the attendant, as is usual at feeding them, and they develop without getting too fat and ripe.

For the last seven years, we have gotten the first

eggs when the pullets were from four months and ten days to four months and twenty days old. There is some danger of the pullets getting developed too early and commencing laying too soon for best results, under this system of feeding. In order to prevent such conditions, the houses should not be located too close to each other, or to the feed trough, and a large range should be given so they may be induced to work, which they will do, if given the opportunity early after their removal to the fields. Should the birds show too great precocity, and that they are liable to commence laying in August, the supply of cracked corn in the feeding trough is reduced, or taken away altogether, which causes them to eat the wheat, oats and dry meal instead, and they continue to grow and develop without getting too fat and ripe.

During the last days of October, it is our practice to move the pullets into the laying house.

Last season 2,000 pullets were raised for layers and the following materials were used in producing each one:

28 lbs. of grain, meal and scrap, costing. .	44.5 cents.
3-4 lbs. of cracked bone	1.5 cents.
1-2 lb. oyster shell . . . . .	.25 cents.
2 1-4 lbs. of Mica Crystal Grit	1.25 cents.
1-2 lb. charcoal . . . . .	.5 cents
1 1-2 pints of oil	2.5 cents
2 eggs	4.0 cents.

54.5 cents.

Before they were moved into winter quarters, many of them were laying in the brooder houses, and the eggs from them at that time had sold for a hundred dollars.—*Maine Experiment Station Bulletin.*

In roup there is a decided swelling of the head, cheesy formation in the throat and mouth, watery discharge from the eyes, and frequently they are swollen shut. The symptoms of a cold are present. Roup is very contagious and will likely ruin the entire flock unless the sick birds are removed as soon as discovered. The entire premises should be disinfected carefully every week until the contagion abates. Roup is also very fatal, a large percentage of the afflicted birds dying, and those that eventually recover are generally subject to a renewal of the roup or a severe cold on return of unfavorable weather conditions. Roup is very hard to cure and only in case of valuable birds is there use of doctoring. Even then if you save the bird you are frequently carrying over the trouble when the bird gets sick again and spreads the roup among the well fowls.

The Horse.

NOTES.

Encouraged by the success of both the Virginia State Fair and Richmond Horse Show Associations, both of which Associations cleared a nice sum above expenses at their exhibitions in Richmond last month a movement is being agitated to hold a race meeting here next spring, it being prompted by merchants, horsemen and others in the city. Though quite heavily handicapped by adverse conditions, the State Fair cleared about \$7,000 above expenditures, and while returns of the Horse Show have not yet been submitted, it is safe to assume that a nice sum was realized, because in point of attendance and character of exhibits it was really a brilliant affair. But reverting to the proposed spring meeting, it seems the project should materialize and a meeting of four days could be held in the month of May with profit, as a medium of sport and diversion to the public in general. The last regular spring race meeting was held at Richmond in 1895, under the auspices of the old Richmond Riding and Driving Association, and from here the horses went to Baltimore. With the present outlook there is a possibility of a circuit being formed to include Richmond, Norfolk, Washington, and Baltimore, which should afford a series of good spring meetings, and it is to be hoped the affair may assume definite shape at an early date.

H. T. Oxnard, the sugar king, who owns the splendidly appointed Blue Ridge stud, has decided to give up racing and confine his operations to breeding. Among the brood mares in the Blue Ridge stud are matrons, both imported and native bred, of the choicest blood lines and individual excellence, while the stallion roster is made up of such horses as Islington, the English-bred son of Isonomy, Prince of Melbourne, a Realization winner, Hawkswick and Golden Garter. Mr. Oxnard's horses in training, mostly two-year-olds, have been turned over to his brother James Oxnard, whose colors, with William Brooks as trainer, will be seen on Metropolitan tracks in 1907. The produce of the Blue Ridge stud will in future be sold by auction.

According to reports in the Richmond dailies of winners in the show horse department of the Virginia State Fair this fall, it was made to appear that Pallas, owned by Roanoke Coach Horse Association,

was awarded the blue ribbon over imported King Edgar, but Mrs. Allen Potts, of Castle Hill Farm, Cobham, Va., owner of the latter, writes me that her horse took first prize in the class mentioned, and, as might be expected, she is desirous of proper credit being given. Never having seen Pallas, I am, of course, not in a position to offer comments but having looked over King Edgar, I may say that, individually and otherwise, the big black stallion from Castle Hill impressed me very favorably.

Richmond men who formerly figured as successful breeders of trotters, and who are now following other lines, include B. W. Ford, in other years identified as proprietor of the noted Castleton Farm, Lexington, where he bred Trevilian, 2:08 1-4; William Ellison, who bred the giant trotter Mosul, 2:09 1-4, his dam, Virginia Maid, his grand dam, Peach Blossom, owned the grand dam, Nelly Buck; Preston Belvin, who owned Acca Farm and bred Miss Nelson, 2:11 1-4. Miss Nelson, now dead, formerly held the record for Virginia-bred trotters, until displaced by Lamp Girl, 2:09, the daughter of Walkker Morrill, for whom William West, of Onancock, was responsible for the production of. Of the old guard, however, James C. Smith is still in harness, as for forty years past, and never during that period has his interest as breeder, owner and campaigners languished even for a single season, among his holdings being the sensational Nutboy, 2:07 1-2; Mosul, 2:09 1-4; Roster, 2:11 1-4, and a half a hundred more with slower marks.

M. F. Hanson, formerly of Michigan, but for a decade past located in Virginia, where, by advice of physicians, he removed on account of ill health, has returned to the Wolverine State for a short visit to relatives there. Hanson's first engagement in Virginia was with the Floyd Brothers, Bridgetown, later with Foxhall Stock Farm, Norfolk, and now with the Montezeuma Farm, Richmond, where he will jog Bertie May, 2:29 1-4; Samuel Prince, 2:29 1-4, and ten others on the road during the winter. Hanson is a careful, painstaking man with his horses, having developed and marked such as Clarion, 2:15 1-4; Forney, 2:19 1-4, and others, while good manners and a reputation for honesty have gained him friends.

BROAD ROCK.

Miscellaneous

VIRGINIA POLYTECHNIC INSTITUTE.

(Mechanical and Agricultural College.)

As we went to press with our last issue, we received an intimation that Dr. J. M. McBryde, the honored President of the Virginia Polytechnic Institute, had tendered his resignation to the Board of Visitors, to take effect in June next, with the request that the same might be accepted and acted upon. Words fail us to express the regret we feel in having to make this announcement. Though the resignation does not come to us unexpectedly, as for more than a year past the health of the Doctor has been greatly impaired and the necessarily heavy duties of the position he occupied seemed to be overwhelming him, yet we had hopes that the long furlough which the Board of Visitors granted and which the Doctor spent in Jamaica had so reinvigorated him as to have fitted him to carry on his work for the college for at least a few years longer. That high sense of duty which is so characteristic of the Doctor led him to the conclusion that he ought to resign, and when this conclusion was formed, he carried it into effect at once, giving the Board, at the same time, ample time within which to look around and select his successor before his hand was taken from the helm. In our issue of June, 1891, when we announced Dr. McBryde's appointment, we made the following remarks on the subject: "Dr. J. M. McBryde, who has been elected to and accepted the position of President of the College and Director of the Experiment Station, comes to the State from the University of South Carolina with an enviable reputation. The work he has done there and previously in Tennessee has made his name and fame widely known. Dr. McBryde stands in the front ranks of technical educators and agricultural experimenters and investigators. When a critical examination of the State Agricultural Colleges of the South was made for the United States Department of Agriculture in 1885, the work of President McBryde at Columbia was reported as 'fulfilling the requirements of the Morrill Bill of 1862 better than any other seen.'" The President of a leading Southern University, and a gentleman well known in Virginia, says of Dr. McBryde: "I am decidedly of the opinion that President McBryde is the very best man that you can get to fill this place. Agriculture is his specialty. He is a gentleman of the noblest type and a man of affairs." A correspondent of our

own from South Carolina says: "As an organizer of the College and of the Experiment Station, he has shown rare good judgment. His acquisitions are enhanced by his high character." With such testimony as this to his work and ability, we feel perfect confidence that under his care the College and Station will soon take that high position amongst the institutions of the land that rightly belongs to them, and we congratulate the farmers of the State upon the advantages which will doubtless accrue to them from his coming." Now that fifteen years have passed since we wrote the above words, we can with confidence appeal to every one in the State to say whether Dr. McBryde has not measured up to the full of what we said of him in every particular in his work at Blacksburg. He found the College in a sad state of disorganization, a weak Faculty, with no very definite ideas of what they were placed there for, and with no special qualifications for technical teaching or development, a student body of only about 100 pupils, and these with no curriculum of studies, calculated to illustrate the special purpose for which the Agricultural and Mechanical Colleges were founded and with no or very small facilities for special technical teaching or training. The College in fact was one of which the State had no reason to be proud, and its alumni were certainly not proud of it or its record. The Experiment Station was doing little or nothing, and nine-tenths of the farmers of the State did not even know of its existence. It was indeed and in truth a flagrant example of political mismanagement and abuse. To-day, as the result of Dr. McBryde's noble work, it is the leading technical College of the South and measures well up to the standing of the most celebrated colleges and schools of the North and West. It has a Faculty more than five times as numerous as when he went there, and these gentlemen are among the leading members of the technical teachers of the land, the curriculum of studies is so well selected and the facilities for technical training so complete that the fullest ends and aims of the founders of the Agricultural and Mechanical Colleges can be realized, and above and beyond all these it has a student body of more than six hundred young men drawn from the counties of this State and some from adjoining States, who would be a credit to any college anywhere, and who are proud of their Alma Mater, and the alumni of the Insti-

tute are to be found filling the most responsible and honorable positions in all parts of the world. The Experiment Station is doing a great work, and farmers now know of it and are proud of it and those conducting the work. Such a record is, indeed one of which Dr. McBryde may well be proud, and the State is to be congratulated on having such an institution in its midst. No breath of scandal or job has ever besmirched the name and fame of the College since Dr. McBryde has been its head and he leaves it with a record which could not indeed be higher. In his retirement he can look back upon his work there with satisfaction and pleasure and feel proud that he was enabled to accomplish so much. We wish him complete restoration to health and a long life of leisure in the contemplation of work well done, and in doing this we know we but voice the sentiments of the farmers of the State.

SOME ADVICE FOR OUR YOUNG MEN.

This summer the Commissioner of Agriculture Mr. G. W. Koiner, went to Europe, in the interest of emigration to Virginia. How far he has succeeded will be determined in the near future. He reports that agents from other sections of our country have poisoned the minds of those people against the South by misrepresentations of all kinds, but notwithstanding, he expects good results from his mission.

This subject suggests this thought—Why “go West,” young men of Rockbridge and Virginia? Stop and think before you take the step!

There are factors at work in Virginia to-day which will develop opportunities for our young men, not surpassed elsewhere. Virginia has been subjected to all sorts of abuse, and scourged in many ways during the past half century, but her possibilities in the near future are luminous. The monarchs which so long have bound her are broken, and to-day she stands forth in all of her historic beauty and grandeur. From the Potomac to Bristol, from the sea-washed shores to the Alleghanies, are seen such evidences of improvement and growth as are surprising. New towns have sprung up, cities greatly enlarged, mining and manufacturing interests greatly extended. Health resorts so improved as to meet the demands of the most fastidious. Real estate has increased in value, some sections more than others. In the trucking section of Virginia land has advanced over 500 per cent. Agriculture as well as Horticulture, has greatly improved, and the demand for additional labor in the more productive fields of enterprise has greatly depleted the labor of our farms. The min-

ing and manufacturing interests offer larger wages than the farmer can, but, looking to the future, I believe that he who labors on the farm at reduced wages, will in the end, if he uses proper economy and industry, accumulate and secure a home perhaps sooner than he who labors at “public works,” where cost of living is much greater than on the farm and the inducements to spend greater.

Now, young men, as there is such a demand for labor in your own State, why desert to another when your State needs your help; when you can do as well here, or better, for yourself. Your first duty, when you begin business for yourself, is to your parents and your State, especially if they can do as well for you as others. If you use the same industry here that you expect to use when you go West, I venture to say that you will do as well and perhaps better. The wealth of the West has been brought about largely by the increased value of the lands. We have a better climate, a soil that can be brought to the highest state of productiveness, a population unsurpassed for gentleness, generosity and hospitality, law abiding, and with an earnest devotion to Virginia. What more, young men, could you wish? The women, too, of Virginia are, I am sure, the equals of any in this wide world.

Labor, love and happiness is all that you may expect or hope for. Here in Virginia you can find these, but not without effort on your part. We obtain but little in life without work. You will not find wealth either in the North or West without toil.

Make up your minds to fight it out on the lines mentioned. Be true to your State, your friends and yourself. Pull off your coat and go to work here at home, and if you follow the advice offered and stick to your business, you will, in the near future, have a comfortable home of your own and be a respected citizen of the old Commonwealth.

Rockbridge Co., Va.

W. B. F. LEACH.

OUR CASH PRIZE OFFER.

This is the last announcement we can make regarding our Subscription Contest, which closes December 31st. At this writing, (Nov. 20th), no one has sent in more than fifteen names. It will, therefore, be seen that it is anybody's race yet. Any one attending any farmers' gathering should be able to get this many subscriptions in a day. Look up the advertisement and write for terms to-day.

The winners will have checks sent them soon after January 1st, and their names announced in February issue.

THE PRESIDENCY OF THE VIRGINIA POLYTECHNIC INSTITUTE.

It has been announced in the daily press that the Board of Visitors of the Institute will take under consideration the question of the appointment of a successor to Dr. J. M. McBryde at the January meeting, and the names of one or two gentlemen have been mentioned as candidates for the appointment. We wish to at once put in a protest against undue haste in filling this most important position. There is no necessity for this, as Dr. McBryde's resignation does not take effect until June next. There is on the contrary every reason why time should be given to look over the field for the best man to fill the place. Any man but the best will not satisfy the people of the State. The men best qualified for such positions are not usually candidates. They have to be sought out and solicited, and this requires time and much investigation. We would urge strongly that the Board proceed no further with the matter in January than to appoint a strong committee to enquire and report to a later meeting. The farmers and supporters of technical education in the State will resent and remember any mistake which the Board may make in this matter.

TOBACCO GROWERS MEET.

The North Side Sun-Cured Tobacco Association met at Bowling Green, Caroline County, on November 12th. Much business of importance was discussed. The Secretary reported that the membership of the Association held about 800,000 pounds of tobacco. After conferring with a number of warehousemen, it was decided to market this tobacco this season through a committee to be named at once. Arrangements will be made forthwith for a series of sales in order that the farmers may dispose of their holdings which, by the way, are decidedly inferior owing to the bad season. Both the Association and the warehousemen feel that the adoption of the above plan will prove eminently satisfactory to all concerned and produce an even and steady market for the sun-cured tobacco, thereby preventing slumps in prices, which are always disastrous to seller and broker alike. Some warehousemen ventured the opinion that this system of marketing will enhance the value of the weed from ten to twenty-five per cent.

We strongly urge our readers who grow sun-cured tobacco to join these gentlemen in trying to establish some business-like method of marketing their tobacco

and to quit the hit or miss, haphazard style of dumping tobacco on the market, which has been in vogue already twenty-five years too long.

Write Mr. J. J. Terry, Secretary, Negrofoot, Va., for further information in regard to the Association.

SOUTHERN TOBACCO GROWERS.

After our issue for November had gone to press, we received an article from Mr. J. A. Hardy, commenting on our reply to Mr. Kern's article published in the October issue. We wrote Mr. Hardy that this article should appear in our December issue. We would gladly have published the article as promised, but for the fact that since that time Mr. Hardy has had the same published in the Times-Dispatch. It is an invariable rule with this Journal not to publish matter sent us if same has been sent to and been published elsewhere before the same appears in our columns. Notice of this rule is given every month at the head of our Publisher's Notes. For this reason, the article does not appear in this issue.

CURING COLDS.

Each fowl showing evidence of cold or congestion is shut up in a small coop and given two grains of calomel at night, followed by a one grain quinine pill night and morning for two or three days. If there is any discharge from nostrils, a few drops of camphorated oil are injected into each nostril. If any improvement is manifest in two or three days, they are removed to a small room and a solution of copperas added to the drinking water. They are kept here for a week or two, or until they show a complete recovery. If, on the other hand, after two or three days observation and treatment no improvement is manifested, the bird is killed and buried.—*American Agriculturist*.

CURE FOR ROUP.

A good remedy for roup that I have used with success for a number of years is as follows: Put 15 to 18 drops of carbolic acid in a pail of drinking water. This for every day prevention. For swabbing throat use two or three drops of acid in a teacupful of water. Swab with feather.—*A. B. Henry*.

If the farmer will take time to replace the window panes that have been broken, apply a coat of whitewash to the interior of the poultry house, sprinkle gravel on the floor and lay in a few barrels of dust for the fowls to roll in, it is safe to say that his wife will attend to the lighter work.

THE V. P. I. PRESIDENCY.

Editor Southern Planter:

It having been announced in some of the papers of the State that Dr. J. M. McBryde has resigned the presidency of the Virginia Polytechnic Institute, and a new man is to be elected to the position, it becomes a question of great importance for industrial education in the State as to the kind of man needed for the position. The Board will have no easy task in selecting the most suitable man available for this important position. There have been men elected to this position in the past largely through political influence, and even now we hear of "candidates" for the position.

I believe the Board will think the Institution has outgrown political influence. We farmers of the State do not want to see any backward steps taken at this institution; therefore, the man elected should be especially trained for this position. He should be sound on industrial education. This should be the one supreme test of the man. His aim and object should be to advance industrial education in the State. Without special training for this position, his heart and soul will not be in the work and failure will be apt to be the result, retarding the progress of the Institute and bringing reproach upon the Board that elects such a man.

I hope that the Board will not need any advice along this line; but, judging from some newspaper items, a word or two on the subject from the farmer's standpoint may be timely.

He should be a college man who knows what an industrial education should be. If he does not know, the Institute may branch into literature or commercial training, while agriculture and mechanics are left side-tracked. Agriculture has not fared so well at the Institute as it is until recently. And now, since the agricultural features are being strengthened by more money being spent in that department, I want to see this feature developed to what it should be.

A man who has not had some agricultural training and is not familiar with the present day equipment for teaching agriculture is very apt to neglect the agricultural features of the Institute, because he cannot appreciate the importance of the subject.

After serving under six college presidents representing business, political and professional life, I found those who had no special training for the presidency were largely a failure. This is just what one would reasonably expect. We do not put the draft

horse on the race track, nor employ a dentist when we have typhoid fever. This is an age of special training for special work.

There should be no boundary lines to circumscribe the limits from which a president should come. Virginia needs the best—let him come from the North, South, East or West.

His name should stand for industrial education before the State legislature. He should be one the students will be proud to have on their "sheep skin." He should be a man of financial and executive ability. A man who cannot manage people wisely or spend money judiciously would soon wreck the Institute, however good his political or family connection might be. Virginia needs the best material that can be obtained, and will not be satisfied with anything else.

Montgomery Co.

R. H. PRICE.

Next to a draft, a damp house or roosting place is the most prolific cause of colds in fowls. Look after the dryness and ventilation of your roosting quarters also.

A plain cold can be told by the fowls having a watery discharge at the nostrils and eyes and the birds throwing their heads and sneezing. A plain cold is easily told from the roup by absence of a cheesy substance in the throat and nostrils of the birds. This cheesy mass always accompanies roup. The head will frequently swell with a cold, but the swelling is more marked in roup. A common remedy for colds is to apply kerosene to the heads of the worst afflicted birds. A slight film of kerosene oil on the drinking water will often cure mild colds in a few days.

Bronchitis is the cold extended to the bronchial tubes and the fowls make a rattling noise when breathing. This disease continues for weeks in some cases. Treat like a severe cold with kerosene oil, pouring the oil well down the nostrils and throat.

In cases of colds, roup, and bronchitis, it is well to keep the birds out of the cold rains or snow.

Cut scions now for grafting purposes next spring. Select well ripened wood, of this season's growth, from thrifty bearing trees of known variety. Store in damp sand or sawdust in the cellar. Beware of San Jose.

Pruning and cleaning up of orchards, vineyards and small bush fruit plantations should have attention whenever the weather is suitable.

THE Southern Planter

PUBLISHED BY

THE SOUTHERN PLANTER PUBLISHING CO'Y,

RICHMOND, VA.

ISSUED ON 1ST OF EACH MONTH.

J. F. JACKSON,

Editor and General Manager.

B. MORGAN SHEPHERD,
Business Manager.

B. W. RHOADS,

Western Representative

1714 Tribune Bldg., Chicago, Ill.

MANCHESTER OFFICE:

W. J. CARTER,

1102 Hull St.

ADVERTISING RATES

will be furnished on application.

THE SOUTHERN PLANTER is mailed to subscribers in the United States and Canada at 50c. per annum; all foreign countries and the city of Richmond, 75c.

REMITTANCES should be made direct to this office, either by Registered Letter or Money Order, which will be at our risk. When made otherwise we cannot be responsible.

SUBSCRIBERS failing to receive their paper promptly and regularly will confer a favor by reporting the fact at once.

WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. Criticisms of Articles, Suggestions How to Improve THE SOUTHERN PLANTER, Descriptions of New Grains, Roots, or Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.

NO ANONYMOUS communications or enquiries will receive attention.

Address THE SOUTHERN PLANTER,
RICHMOND, VA.

ENTERED AT THE POST-OFFICE AT RICHMOND, VA., AS SECOND-CLASS MATTER.

PUBLISHER'S NOTES.

CASH PRIZE OFFER.

We beg to call particular attention to the subscription prize offer on the first page of this issue. This is a clear cut proposition without any strings tied to it and only a few simple rules governing it which will be sent promptly to all who will enter the contest. This is a most liberal offer and a

good chance for the boys to earn a good cash prize together with a little pocket money in the shape of commissions on all subscriptions secured. Parents should call their sons' attention to the offer, as any one has a chance to win the first prize. Just think, twenty or twenty-five subscriptions may win it! Nobody has sent in this number yet. A little hustle should secure more than that any day. Write us now.

To Advertisers.

Be sure to send in your copy or instructions on or before the 25th of the month for the following month's issue. This is imperative.

A NEAT BINDER.

We have recently received a new supply of Binders for the Southern Planter. This is a very neat and durable device for saving the entire volume intact. It will prevent soiling and turning up of the corners. Get one now and fasten your copies in it as they are issued and at the end of the year, you will have a valuable reference volume. Price, 30 cents, post-paid.

CORRECTION.

In the advertisement of White Wyandottes offered by Mr. R. R. Taylor in our November issue, page 907, the words, "Virginia State Fair" were blurred. Mr. Taylor endeavored to say that he won three blue ribbons at this fair, but either the printers or the pressmen very successfully headed him off. We take this method of correcting the error and to suggest that parties wishing White Wyandottes will do well to look up Mr. Taylor's advertisement and get his prices.

Davidson Co., Tenn., Sept. 3, 1906.

I never want THE SOUTHERN PLANTER stopped.

W. H. BUMPASS.

Poultry Supplies.

If you want eggs during the winter, you must feed Animal Foods, such as

Meat Meal,

Beef Scraps,

Blood Meal,

Bone Meal,

to take the place of the insects, worms, etc., which poultry get in summer. OYSTER SHELLS and GRIT are also prime necessities.

Write for Prices and Catalogue telling what to use for Success and Profit with Poultry.

T. W. Wood & Sons, Seedsmen,
RICHMOND, - VIRGINIA.

We carry complete stocks of Cyphers' Incubators and Brooders, Poultry Foods, Egg Producers, Lice and Insect Powders, Poultry Remedies, etc.

Helpful Catalogue mailed free.

REPAIRING 85¢

WE WILL REPAIR YOUR WATCH

For 85 cents NO MATTER WHAT THE TROUBLE. The parts must be in the watch and its repairable. We have the Finest and Best automatic tools made, our workmen are experts, doing nothing but repairing all the time. Thus we are able to do the best work rapidly saving time and expense. We give you the benefit of this expert ability and saving. We are reliable. Reference Citizens National Bank, Attica, Ind. Send us your watch with 85 cents in coin or money order (no stamps or checks) by registered mail. We will repair your watch and return it by registered mail, prepaid, with a written guarantee for one year. Address

Attica Watch Company
ATTICA, IND.

GUARANTEED ONE YEAR

SAWS

ANY WOOD IN ANY POSITION ON ANY GROUND 4 into 8 ft. Through 6 to 8 cords daily at the usual average for one man.

1 Man with a Folding Machine Beats 2 MEN with a Sawing Machine

RUNS EASY No Backache

WEIGHTS 15 to 25 lbs.

SAWS DOWN TREES

SAVES CARBIDE

Our 1907 Model Machine saws faster, runs easier and will last longer than ever. Adjusted in a minute to cut a 12-year-old boy or the strongest man. Send for catalog showing latest improvements. First order gets agency.

Folding Sawing Mach. Co., 158 E. Harrison St., Chicago, Ill.

BANK OF RICHMOND,
Main and Ninth Streets

CAPITAL AND PROFITS EARNED, \$1,200,000.

Special attention paid to out-of-town accounts. Correspondence invited.

Three per cent. interest allowed in Savings Department.

Compounded semi-annually.

THE 1907 QUAKER CITY FEED MILL PRICES.

This is a long time favorite mill with stock raisers. It is interesting to note that with all its late improvements, making the quality higher than ever, the price has been materially reduced. Quaker Cities will probably hold the lead in 1907 over all as they have done for 40 years.



Ball bearing, grinding ear corn and grains, singly or mixed, grinding coarse or fine, light running, nice work, durable—they leave little to be desired. Any responsible party can now have

a Quaker City shipped for free trial at the reduced prices, freight paid. Eight sizes. Free book with all particulars can be had from The A. W. Straub Co., at either 3737 Filbert St., Philadelphia, or 47-49 Canal St., Chicago.

WITH THE ADVERTISERS.

J. M. Thorburn & Co., the well-known New York seedsmen, start the season's advertising with this issue.

Peruvian guano and fertilizer chemicals are offered our readers again this season by the Coe-Mortimer Company.

A very handy compost drill is advertised by Messrs. Lindsey & Son.

The Attica Watch Company make a novel and liberal proposition in their advertisement on another page.

W. C. Geraty has a prominent announcement on another page, in which he offers cabbage plants.

Yager's Liniment, made by Gilbert Bros. & Co., Baltimore, is advertised prominently on another page.

The German Kall Works have an announcement in another column to which attention is invited.

The Hamer Sure Cure Company is a new advertiser this month. They offer veterinary remedies.

Splendid Scotch collies can be had from the Vincrest Farm Kennels.

The Imboden Harrow and Roller Company have a couple of advertisements in this issue, to which attention is invited.

J. J. Buffington & Co. are advertising field seeds in this issue. They are also in the market to purchase all varieties of field peas.

Note the change in the figures in the advertisement of the First National Bank.

The Fox Hall Poultry Farm has a strong announcement elsewhere in this issue. Better send for their egg circular.

J. S. Moore's Sons would like to supply you with your Christmas groceries, candies, etc.

A splendid lot of Poland-Chinas are offered by J. F. Durrette.

J. M. Hobbs is offering a nice lot of poultry and live stock.

J. F. Jerman has a splendid offering of farm properties on another page.

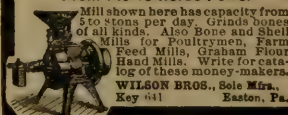
The poultry and incubator men are out in full force in this issue. Before purchasing you should get prices and catalogues from the various advertisers.

BANNER POULTRY SHOW OF THE SOUTH, RICHMOND, VA., JANUARY 23-28, 1907.

The annual Poultry Show of the Virginia Poultry Association will be held in Richmond, Va., January 23-28, 1907. The premium list shows a complete classification of all standard breeds of thoroughbred poultry, pigeons, etc. Many special prizes, such as cups, etc., are offered, and taking into consideration the grand showing of fine specimens and number of entries in the poultry department at the last State Fair (the poultry department being under the auspices of the Virginia Poultry Association), this show should prove a grand success and bring out a big number of exhibitors. The show comes at a time

SAVE MONEY MAKING FERTILIZER

Make your own fertilizer at small cost, increase your crop and save money, using **Wilson's Phosphate Mills** From 1 to 40 Horses Power



Mill shown here has capacity from 5 to 20 tons per day. Grinds bones of all kinds. Also Bone and Shell Mills for Poultryryen, Farm Feed Mills, Graham Flour Hand Mills. Write for catalogue of these money-makers.

WILSON BROS., Sole Mfrs., Key 641, Easton, Pa.

Black Hawk Corn Sheller

Clamp to Barrel, Box or Tub. Capacity 8 to 14 bushels per hour. Shells easily, shells rapidly, shells perfectly clean. Extended Hopper and separator prevent any scattering of corn. Largely of Malleable Iron. Bearings Chilled. Will last lifetime. So well made that all repairs are FREE. World's fair Medals at Chicago 1893-St. Louis 1904. Beware of Imitations. Insist on having the Original and Best. Invented and made only by A. M. Patch, Clarksville, Tenn. Manufacturer of Hand Corn Shellers and Hand Grain Mills exclusively.



SCIENTIFIC

RECOGNIZED EVERYWHERE AS THE BEST

POWER FEED MILLS



on earth. Write us for FREE 40-page Catalogue C. Showing fifty styles and sizes.

THE FOOS MFG. CO., Springfield, Ohio

DO YOU PAY TOLL

to have your grain ground? You can save this by using the old time favorite



STAR FEED GRINDER

High grade but low cost. Your choice of Simple Sweep, Grated Sweep or Belt Power. All Good. Postal card brings book 36-grinder all fully.

The Star Mfg. Co., 68 Post St., New Lexington, O.

BEATS THE Grindstone

TEN TIMES OVER

No pressure, no drawing temper, if you use the

Practical Aluminum Grinder

with wheel revolving 3,000 times a minute.

Far superior to emery or stone. Grinds any tool, knife to sickle.

Different sizes. Foot power attachment.

Write for circular of particulars. Good agents.

ROYAL MFG. CO., 35 E. Walnut St., Lancaster, Pa.

GRIND YOUR OWN GRAIN

Save time, trips to mill and expense. Grind your grain with a "Corn Belt" Feed Mill—fully guaranteed, and pay yourself the toll. Largest capacity, lightest draft, greatest strength and durability. Grinds all kinds of grains—corn in all conditions. We sell it on 20 Days Free Trial. Try it before you buy. Patented cutting and shearing process does not heat feed; reduces cob and grain to an even fineness. All other good points told in free catalog. Write for it today—ask for our free trial plan. Spartan Mfg. Co., 184 Chambers St., Galveston, Ill.



TRY THIS MILL

10 Days Free.

I will send any responsible farmer one of

DITTO'S

Latest Double Cut, Triple-Gear Ball-Bearing Feed Grinders

On Ten Days Trial—No Money In Advance.

If it does not grind at least 20% more ear-corn or other grain than any other two horse sweep mill made, send it back at my expense. Don't miss this offer. Ball-bearing throughout. Only 16 ft. sweep. Light draft. Grinding rings never touch each other—they last for years. Both grinders revolve, self-cleaning. Ask for New Catalogue.

G. M. Ditto, Box 48 Joliet, Ill.



HEEBNER'S FEED CUTTERS.

Feed all your fodder. By using Heebner's cutters with shredder attachment the whole of the questionable stock is cut, crushed and shredded, and rendered edible. No waste. No mud in it (grind) and better. Shredder attachment cuts 100 lb. The most useful cutter. Also make Tread Fodder, Leaf Fodder, Little Grain and Fodder. Heebner's Wood Saw, Feed Mills, etc. Catalogue free. HEEBNER & SONS, 25 Broad St., Lancaster, Pa.

MILK CANS ROB YOU

Look through a microscope at milk set to cream in pans or cans and you'll see how they rob you. You'll see the caseine web catch a third to half the cream. You stand that loss just as long as you use pans or cans for they haven't enough skimming force to take out all the cream. But, just the minute you commence using Sharples Dairy Tubular Cream Separator, you stop that loss.



caseine web catches a third to half the cream. You stand that loss just as long as you use pans or cans for they haven't enough skimming force to take out all the cream. But, just the minute you commence using Sharples Dairy Tubular Cream Separator, you stop that loss.

Sharples Dairy Tubular Cream Separators have 10,000 times more skimming force than pans or cans, and twice as much as any other separator. They get all the cream—get it quick—get it free from dirt and in the best condition for making Gilt Edge Butter. Caseine does not bother the Tubular. The Tubular is positively certain to greatly increase your dairy profits, so write at once for catalog I-290 and our valuable free book, "Business Dairying."

The Sharples Separator Co.
West Chester, Pa.
Toronto, Can. Chicago, Ill.

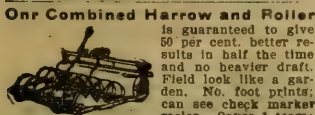


DAVIS LOW DOWN SEPARATOR

Goes direct from factory to you. No state agents or traveling salesmen to pay. Straight factory prices. And it's absolutely the

Easiest to clean, easiest running, simplest separator on earth. We guarantee that with a Davis your profits will increase \$10 per cow while cutting your labor in two. Freight prepaid. Send for money saving catalog No. 122 right now and investigate.

DAVIS CREAM SEPARATOR CO.
562 North Clinton St., Chicago, Illinois.

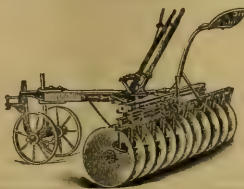


PATENTED.
work. Sent on 30 days' trial. Let us tell you more. Ask for reports, description, price and terms. Mfd. by IMBODEN HARROW AND ROLLER CO., Cleona, Pa. (Agents wanted).

when fowls are in their best coats and just before the breeding pens are mated up. Richmond and the State of Virginia has a large number of poultry breeders, the quality of whose stock is unsurpassed by any other section of the country. They have exhibitors who show North and South, and have never failed to win their share of the leading prizes offered.

Those desiring premium list and entry blanks can obtain same by addressing the secretary, F. S. Bullington, Box 328, Richmond, Va.

USERS OF DISC HARROWS, TAKE NOTICE.



One of our big advertisers, the American Harrow Company, of Detroit, Mich., are using our columns earlier this season than ever with announcements advising our readers who wish to be sure of having a disc harrow to use at the season of the year they need it, to place their orders earlier, because they cannot guarantee to fill all orders in their rush season.

This company has had a remarkable sale on their Tongueless Disc Harrows, and last spring their books showed that they had to return 1,463 orders for these implements that it was impossible for them to fill on account of their factory not being able to turn out enough harrows to go round.

To any of our readers who are not familiar with the Detroit Tongueless Disc Harrow, we advise that they write to the American Harrow Company for their catalogue and other printed matter, and if they decide to buy one of these harrows, we see a good reason why they should place their order early to be sure of getting their implement just when they need it.

A postal card addressed to the American Harrow Company, Detroit, Mich., will bring you full information.

Albemarle Co., Va., Aug. 22, 1906.

I wish every young farmer in the South would take THE SOUTHERN PLANTER and follow it, and our dear old Southland would bloom as the roses.

A. P. DOUGLASS.

Hanover Co., Va., Aug. 24, 1906.

I regard THE SOUTHERN PLANTER as one of the most useful magazines now published. ROSEWELL PAGE.

Let Us Send You Our Book.

about good wheels and good wagons that will save you a lot of work and make you a lot of money—the

ELECTRIC STEEL WHEELS

—and the—

ELECTRIC HANDY WAGON.

By every test, they are the best. More than one and a quarter millions sold. Spokes united to the hub. Can work loose. A set of our wheels will make your old wagon new. Catalogue free.

ELECTRIC WHEEL CO., Box 148, Quincy, Ills.



ELECTRIC



Surries, Buggies,

and Vehicles of all kinds in endless variety of styles. Come and inspect them, or write us for catalogues. We know we can suit you in price and terms. RICHMOND BUGGY AND WAGON CO., Richmond, Va.

\$35.50

30 Day

Test.



No Money in Advance

"Anderson" Vehicles and Harness direct from factory at lowest factory prices.

A REAL FREE TRIAL

with no deposit, no loss of any kind. A two years approval test, with a \$25.00 bank deposit to insure your getting your money back, if not satisfied. You can try an "Anderson" with your money in your pocket. Write for free 110-page illustrated catalog No. 21. It fully explains our offer.

The Anderson Mfg. Co., 42 Third St., Cincinnati, O.



Low steel wheels, wide tires, make loading and handling easier. We furnish steel wheels to fit any axle, to carry any load. Straight or staggered spokes. Catalogue free.

EMPIRE MFG. CO., Box 140 F Quincy, Ill.

WE'LL PAY THE FREIGHT
Morse that "Corn Belt" Feed Mills are made right and work right,—that's why we can sell them on 30 Days Free Trial with full guarantee. The "Corn Belt" Mill grinds grain faster than any other, with less power, without heating feed. Catalogue describes all its points of merit. Write for it.

Besides sweep mills we make several sizes for power, and one combined sweep and power.

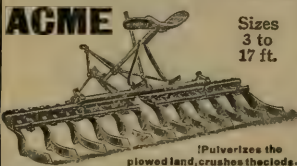
Spartan Mfg. Co., 183 Chambers St., Galveston, Tex.

Try this Harrow FREE

RETURN AT OUR EXPENSE
IF IT DOESN'T PLEASE YOU.

Here is a harrow that looks very different from the old spike or spring toothed harrow.

It is different. Every point of difference is a point of big improvement. It is as much better than the old fashioned harrow as a modern plow is better than the Indians' crooked stick.



Sizes
3 to
17 ft.

Pulverizes the
plowed land, crushes the clods.

The coulters or teeth of the "Acme" work as a gang plow. They turn over the pulverized ground and give the crop all the soil's benefit. Farmers will tell you that bigger crops grow after an Acme harrowing.

FREE BOOK for Farm Library.
Write us today and we'll send you free, a valuable booklet, "A Perfect Seed Bed." It means money to you.

DUANE H. NASH,
Box 19. Millington, N. J.

Cutaway Tools For Large Hay Crops

CLARK'S REVERSIBLE

BUSH AND BOB PLOW

One track 5 ft. wide
1 ft. deep. Will plow
new cut forest. His
double action Cutaway
harrow has a large
true, moves 1800 tons

of earth. cuts 30 acres per day.



NO MORE USE FOR PLOW

His Rev. Disk Plow
cuts a furrow 5 to 10 in.
deep, 14 in. wide. All
Clark's machines will kill
witch grass, wild mustard
chickweed, and other
weeds, will weed this

to or any foot plant. Send for literature to the
CUTAWAY HARROW CO., HIGGANSBURG, CONN

Well Drills

For Horse, Steam or Gasoline Power

Well Augers

For Horse Power

Address

LOOMIS MACHINE CO.
Tiffin, Ohio

HOW A COUNTRY WOMAN CAN EARN MONEY AT HOME.

ARTICLE NO. 1.

MARY WASHINGTON.

There are many cases in which a woman has a very meagre support and is forced to forego the indulgence of her tastes, though she may have a roof over her head and be supplied with the actual necessities of life. This often happens with young women under the parental roof. They have the necessities and comforts of life, but they are unable to take little trips or otherwise indulge their tastes or fancies, except by stint and self-denial on the part of their parents. Under these circumstances, young women naturally desire and strive to make a little fund of their own. The first thought that occurs to the generality of them is that they will teach, and thus many of them enter on this vocation "without any real love or capacity for it, but simply as a means of making pocket money. In the last year or two, however, the standard of a public school teacher's qualifications has been raised and the examinations have become much more rigid, so it is difficult now for any but really capable teachers to get these positions.

Of late years the position of hospital nurse has seemed to appeal very strongly to our young women, and numbers of them have embraced this very arduous calling, which, after a severe apprenticeship, proves very remunerative, and is a high use, but attended with some serious drawbacks.

Again, the vocation of stenographer or typewriter is a very popular one with our girls, but this, and the other callings considered above, involve the necessity of a girl's leaving her home, and what I now wish to consider is the question as to whether an earnest, energetic, capable woman ought not find some way of contributing to her own support whilst still remaining at her home. Suppose this woman to have old parents to whom her presence is the very elixir of life. Suppose them to have a good, comfortable home, in all essential particulars, but still a very meagre income. Say it is a farm, reasonably good, and within access of some town. Might not the daughter find or develop some resource that would enable her, whilst remaining with her parents, to earn a fund over and above what was required for actual necessities? As the imaginary young woman has probably devoted a good deal of time and work to raising flowers for her own pleasure, she might go into this pursuit a little more largely and diligently for the sake of profit. Probably she already has a large pit, and in this she can raise the flowers which she finds are most in demand. There is, for instance, a steady demand for violets and for roses. Calla lilies, too, are in great demand, especially about Easter. Scarlet geraniums are very showy and popular, made up in little bouquets,



THE IMPROVED
SCREW STUMP PULLER.
Write for Price.

Chamberlin M'g Co, Olean, N. Y., U. S. A.

HERCULES Stump Puller



Clears an acre of heavy timber land each day. Clears all stumps in a circle of 100 feet without moving or changing machine. Strongest, most rapid working and best made.

HERCULES MFG. CO.,
413 17th St., Centerville, Iowa.

Monarch Stump Puller

Farmers having stumps to pull or land to clear, had better investigate the Monarch before buying.

Five sizes from \$25 up. We ship on approval and guarantee satisfaction before we want your money. 8 years' experience in pulling stumps. Write for catalogue and prices. J. S. V. RITCHIE, State Agent, R. F. D. 29, Grotoles, Va.

MONARCH
STUMP PULLER



Will pull stumps 7 feet in diameter. Guaranteed for 12 months and a strain of \$50.00 pounds. Catalogue and discounts, address MONARCH GRUBBER CO. Lone Tree, Iowa.



W. SMITH GRUBBER CO.
LACROSSE, WIS. U.S.A.

ENGINES FOR SALE.

10 Horse traction \$250, 12 Horse traction \$300, 16 Horse traction \$400, double sawmill \$125, 10 Horse portable engine on wheels \$150, 1 Horse vertical boiler and engine \$100, 1 Horse vertical boiler and engine new \$125, No. 3 Bowsher corn mill \$35, saw boilers tanks and plate work of every description made to order, second-hand boilers and engines carried in stock from 1/2 to 100 horse, D. L. CASEY MACHINE CO., Springfield Ohio.



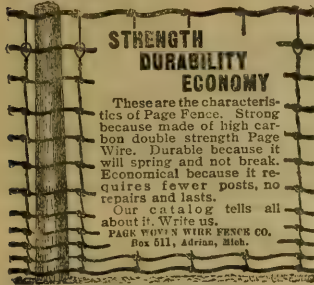
MANLOVE SELF-OPENING GATE

ALWAYS IN ORDER.

This gate can be placed at any driveway entrance, attached to ordinary posts and soon pays for itself in time saved.

It is opened or closed by any vehicle without assistance or stopping. By its use, runaway accidents are avoided. Machinery is all above ground and so simple it never gets out of order.

It adds to the beauty, value, safety and convenience of any home. Address **MANLOVE GATE CO.**, 272 E. Huron Street, Chicago, Ill.



STRENGTH DURABILITY ECONOMY

These are the characteristics of Page Fence. Strong because made of high carbon double strength Page Wire. Durable because it will spring and not break. Economical because it requires fewer posts, no repairs and lasts.

Our catalog tells all about it. Write us. **PAGE WIRE FENCE CO.**, Box 611, Adrian, Mich.



COILED SPRING FENCE

Closely Woven. Can not Sag. Every wire and every twist is a brace to all other wires and twists full height of the fence. Horse-high. Bull-strong. Flawless. Every rod guaranteed.

30 DAYS FREE TRIAL and sold direct to farmer, freight prepaid, at lowest factory price. Our Catalogue tells how Wire is made—how it is galvanized—why some is good and some is bad. Its brimful of fence facts. You should have this information. Write for it today. It's Free.

KITSELMAN BROS., Box 14, MUNCIE, INDIANA.

Save The Posts

Old field pine made to last longer than cedar or locust by creosoting with dead oil of coal tar. The creosoting of lumber makes it practically indestructible, stops all rot and is absolute death to all insects. Write for prices to the **NORFOLK CREOSOTING CO.**, Norfolk, Va.



Ornamental Fence—Cheaper than wood—for lawns, churches and cottages—also heavy steel picket fence—sold direct to consumer. Catalogue Free. **WARD FENCE CO.**, Box 8, MERRIDEN, ILL.

with a fringe of white alysium around them. Chrysanthemums now are such popular flowers, and the new and improved varieties so very handsome that any one who is experienced and successful in their culture may make them very profitable. Then there are hyacinths, which are easily cultivated in winter, for, of course, a large part of the profit of flower raising must arise from your having them at a time when the general public is not supplied with them. The old-fashioned, exquisite lily of the valley is becoming rarer and rarer, and whoever is lucky enough to have these in an old garden should treasure them with extreme care and do everything possible to make them spread and flourish. If anywhere near a town you can always find a sale for these, either directly or through some florist.

Even before the season for green house flowers opens there are many open-air flowers which may prove remunerative, as for instance, nasturtiums, which are very showy, popular and easily raised; China asters (especially the pink and light purple ones), dahlias and scarlet sage. The fashion of having a vase of flowers in the center of the table has become thoroughly established with nearly all well-to-do and refined people, and this affords a market for a vast number of flowers. Accordingly, we find the simpler kinds of flowers in the market stalls during more than half the year, and the thrifty housekeeper, whilst laying in fowl or flesh, vegetables and fruit for her household, does not neglect to add a bunch of brightly tinted flowers to gratify her aesthetic sense.

I have often witnessed the fact that there is a very insufficient supply of fine, green house flowers in and around some of our Virginia cities. I have known of a good many instances where orders had to be sent to Washington city or Baltimore for the requisite flowers when a large and swell entertainment was going to take place and when there was the funeral of some very prominent and popular person. It seems as if there ought to be women amongst us with sufficient skill and knowledge of flower culture to fill up these gaps and to support themselves by this pursuit, which seems so much in keeping with a woman's nature and capacity. I do not doubt it could be made remunerative if pursued steadily and judiciously. Then it is such a refining and healthful pursuit. It brings a woman into contact with fresh air and sunshine and it cheers her by its beauty. Of course, there are difficulties, drawbacks and discouragements in this pursuit as in every other, but if people were deterred by these, all human enterprises would come to an end. There is reason to believe that raising flower seed might be made a profitable industry, more so, perhaps, than even raising flowers. A reputation for raising reliable flower or vegetable seed, or both, would be apt to secure, in time,

THIS BOOK FREE

Write today for work by several well known agricultural authorities, showing why the Harrow is much more important than the plow. Also illustrates and describes

THE ACME HARROW

The riding harrow that cuts and pulverizes the plowed ground. Coulters or teeth work as a gang plow. The only harrow built on correct principles.

Sent Free on Trial.

Ask your dealer to let you see the Acme Harrow. If he hasn't it I will send you one for free trial. No expense to you. Don't forget to write for book.

DUANE H. NASH,
Box 19, Millington, N. J.



WARRINER chain hanging stanchions save cost in feed in one winter, says H. A. Meyer, Syracuse, N. Y. I think them perfect, writes J. B. Calvin, Kewanee, Ind., Vice-president state dairy association. Send for booklet containing further information to **WALLACE B. CRUMB**, South St., Forestville, Ct.

FARQUHAR

Pea Huller, No. 1

Our latest machine, with improved stave cylinder, hulls and cleans all kinds of peas and beans without breaking or cracking. Substantially built and nicely finished. Just what every farmer who raises peas and beans needs. Will more than save the cost in one season. Write for circular and prices.

also Catalog of Engines, Rollers, Saw Mills and Threshers, free for the asking.

A. B. FARQUHAR CO., Ltd., York, Pa.

EASY TO DEHORN

your cattle with the **KEY-TONE** Dehorner knife. Operation performed in an instant with little pain. Leave stumps so that it heals quickly. The **KEY-TONE** Dehorner is sold on a money back guarantee. Send for free booklet giving valuable dehorning facts.

M. T. Phillips, Box 45, Pomeroy, Pa.

Mention The Southern Planter.

THE
MAJESTIC**Rotary Washer.****A Household Necessity.****BECAUSE**

It is the best Washer on earth. It has ball-bearing and almost runs itself.

It is made of white cedar with electrically-welded hoops sunk in the wood.

We are the largest manufacturers of woodenware in the world, and can make the **BEST CHEAPEST.**

Write for Catalogue.

The Richmond Cedar Works.
Richmond, Va.

HOW THE TORRENS SYSTEM AFFECTS COUNTY TREASURERS AND SURVEYORS.**[CONTINUED.]**

Registration of title is a very different thing from recordation of deeds. A deed is simply a contract between the parties, and recordation adds nothing to it except in so far as it gives constructive notice of the contract to all the world. If there is any defect in the deed it is not cured by recordation, but its recordation actually perpetuates evidence of the defect. And so if there is any flaw in the title of the grantor a deed from him does not mend it, though recorded in the most solemn and expensive manner. A deed only conveys the title of the grantor, whatever that may be, good, bad or indifferent; and the only remedy the grantee has if he gets a bad title is that after he has lost it he may bring a suit against his grantor to recover the purchase money under his warranty of title. This is the only remedy he has under our present laws, but he is perfectly protected under the Torrens System, for the Torrens System does not content itself with recording evidences of title, but registers the absolute title and deals with the title itself in every transaction.

DELINQUENT TAXES

You can see, therefore, that as a title registered under the Torrens System is absolute and good against all the world; it can only be originally registered in some judicial proceeding which will be binding on all the world. And before original registration can be made all delinquent taxes are ascertained and must be paid. Thus you start under the Torrens System with a title clear of taxes, and this title will be kept clear under the provisions of the proposed Torrens bill. No man can be deprived of his property for delinquent taxes under this bill without the fullest notice, and no man's home will ever be forfeited for taxes, if registered under the bill, for as soon as any registered land becomes delinquent the owner is notified by the Clerk of the County or Corporation Court and he is given ample time within which to pay. If he doesn't pay within three months the land is sold by the Treasurer, subject to the right of redemption within two years. And if the owner fails, or is unable to redeem within two years, a final sale is then made by the Treasurer, just as if he were trustee in a deed of trust. The sale is made on the premises, after due advertisement in the newspapers, and absolute title is passed to the purchaser. The result is, that the property will bring its full market value—a sound article is offered and a sound price may be expected. And the owner will get whatever he may be entitled to out of the proceeds of sale after paying taxes and charges, costs of sale and discharging any liens he may have made or suffered against

SHIP ME YOUR**OLD METALS****HIDES****RUBBER****SCRAP IRON****Car Lots a Specialty****50,000****Hides Wanted**

Write for Prices.
Satisfaction Guaranteed.
No Commissions.

CHECKS SENT SAME
DAY FREIGHT BILLS
ARE MARKED PAID

Clarence Cosby,**Established 1890.****RICHMOND, VA.****LARGEST DEALER IN**

Scrap Iron, Metals, Hides,
Etc., in the South.

REFERENCES:

National Bank of Virginia,
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Broadstreets and Dun.

Get the Best

A Good Spray Pump earns big profits and lasts for years.

THE ECLIPSE

is a good pump. As practical fruit growers were using the common sprayers in our own orchards—found their defects and then invented The Eclipse. Its success practically forced us into manufacturing on a large scale. You take no chances. We have done all the experimenting.

Large fully illustrated Catalogue and Treatise on Spraying—FREE.



MORRILL & MORLEY, Benton Harbor, Mich.

**Defender
Sprayer**

All brass, easiest working, most powerful, automatic mixer, expansion valves, double strainer. Catalogue of Pumps and Treatises on Spraying free.

AGENTS WANTED

J. F. Gaylord, Box 83 Casskill, N. Y.

**SAN JOSE SCALE**
and other INSECTS killed by
GOOD'S**Caustic Potash Whale-Oil Soap No. 3**

Endorsed by U. S. Dept. of Agr. and State Experiment Stations. This soap is a Fertilizer as well as an insecticide. 50 lb. kegs, \$2.50; 100 lb. kegs, \$4.50; half barrel, \$6.00; 40 lb. per lb.; barrel, \$25.00. Send for Booklet.

JAMES GOOD, Original Maker.
889-91 N. Front Street, Philadelphia, Pa.

GINSENG Plants and Seeds for fall and Spring delivery 1906 and 1907. Popular prices. For further information address, C. F. CARTER, Seven Mile Ford, Va.

Bargains in 2nd Hand Machinery in good order.

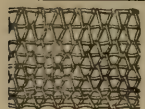
- 1 4 H. P. Geiser Engine and Boiler,
ON WHEELS.
- 1 6 H. P. Geiser Engine and Boiler,
ON WHEELS, Almost New.
- 1 8 H. P. Geiser Engine and Boiler
ON WHEELS.
- 1 25 H. P. Detached Steam Engine.
- 1 30 H. P. Boiler.
- 1 25 H. P. Engine and Boiler,
ON WHEELS.
- 1 12 H. P. International Stationary
Gasoline Engine.
- 1 No. 1 Geiser Saw Mill
With 5 head bolts and 25 foot carriage.
- 1 5 Roll Milwaukee Husker and
Shredder,

GOOD AS NEW.

WRITE FOR FURTHER
INFORMATION

The Watt Plow Co.

Richmond, Va.



WARD FENCE.
Heavy Spring Steel Double
Galvanized. To Farmers at
factory prices, freight pre-
paid. Catalogue Free.

WARD FENCE CO.
Box 69 Mar. 23, Ind.



LAWN FENCE

Made of Steel. Lasts a life-
time. We have no Agents.
Sold to users at Wholesale Prices.
7 cts. a foot up. Cheaper
than wood. Catalogue Free.
KITZELMAN BROTHERS,
Box 4122, Miami, Indiana



Wire Fence 20c

48-in. stock fence per rod only
Best high carbon-coiled steel spring wire.
Catalog of fences, tools and supplies FREE.
Buy direct at wholesale. Write today.
MASON FENCE CO. Box 80 Louisville, Ky.



IRON FENCE

LOW PRICE — HIGH GRADE —
CATALOGUE FREE.

JOHN WIRE & IRON WKS. LOUISVILLE, KY.

GETAWAY TOOLS FOR LARGE HAY CROPS.

Three of Clark's Intense Cultivators produced this year on 14½ acres, 102 tons of well dried alfalfa, timothy and redtop hay. If you want to know how, enclose a 2-cent stamp to **GEORGE M. CLARK, Higginum, Conn.**

the property. This is just and equitable to the State and all parties concerned, but has never been done in this or any other State, so far as we know, and was never suggested until the Virginia Torrens bill was drawn. Everybody knows how unjust our present tax laws are, and how they work a practical forfeiture of the lands of the unwary and the homes of the poor. But no such forfeiture could occur under the Torrens System, as proposed for Virginia, and this Commonwealth would have the honor of again being a leader among the nations in correcting one of the abuses of the centuries.

COUNTY TREASURERS.

You will observe that these duties are to be performed by the County Treasurers under the proposed bill, and they will be paid the same commissions that trustees now get under deeds of trust—to-wit: 5 per cent. on the first \$300 and 2 per cent. on the balance of the proceeds of sale. Isn't this fair and just? Isn't it right that these officers elected by the people should be permitted to discharge this duty instead of a State Collector of Delinquent Taxes to be appointed by the Auditor of Public Accounts and paid enormous commissions, as is proposed by a bill introduced in the last House of Delegates? Every County Treasurer should make up his mind on this question and not only write himself, but get his friends to write to Senators and Delegates urging them to do all they can to secure the passage of the Torrens bill and the defeat of all opposing measures.

COUNTY SURVEYORS.

The Torrens System will not only help the Treasurers, as shown above, but will also benefit the County Surveyors. For the question of boundaries is an important one, and in order that the court may make no mistake in registering a title the Torrens bill provides that those who wish to have their titles registered must have their property surveyed by the County Surveyor. This is proper, because the surveys should be made by one man in each county, who will thus become familiar with all boundary lines and not do injustice to any one; and the County Surveyor, appointed under the Constitution to make official surveys in the county, is the proper man to do this work. His charges are reasonable, he knows his people and they know him, and his surveys will be most accessible to those most interested in them. County Surveyors are thus deeply concerned in the fate of the Torrens bill and should do all they can to secure its passage.

EUGENE C. MASSIE.

Greenwood Co., S. C., Aug. 29, 1906.

THE SOUTHERN PLANTER is first-class and I want it as long as I can pay for it. **J. F. DAVIS.**

A\$20 Watch for \$5.45



These figures tell exactly what we are doing—selling a \$20.00 watch for \$5.45. We don't claim that this is a \$10.00 watch or a \$5.00 watch, but it is a \$20.00 watch. A leading watch manufacturer, being hard pressed for ready cash, recently sold us 100 new watches—watches actually built to retail at \$20.00, \$12.00 or \$10.00, but this would involve a great amount of labor, time and expense. In the end our profit would be little more than is at selling the watch direct to the consumer at \$5.45. The Evington Watch, which we offer at \$5.45 is a rubied jeweled, finely balanced and perfectly adjusted movement. It has specially selected jewels, 4 of stand, patent regulator, enameled dial, jeweled compensation balance, double hunting case, genuine gold-laid and lavishly engraved. Each watch is thoroughly time tested and regulated, before leaving the factory and both the case and movement are guaranteed for 25 years.

Cut out this advertisement and mail it to us to-day with your name, postoffice address and nearest express office. Tell us whether you want a ladies' or gents' watch and we will send the watch to your express office at once. If it satisfies you, after a careful examination, pay the express agent \$5.45 and express charges and the watch is yours, but if it doesn't please you return it to us at our expense.

A \$5.00 year guarantee will be placed in the front case of the watch we send you and to the first 10,000 customers we will and a beautiful gold-laid watch chain, free. We refer to the First National Bank of Chicago, Capital, \$10,000,000.

NATIONAL CONSOLIDATED WATCH CO.
Dept. 1, CHICAGO

Make Your Idle Money Earn You Interest

Write the **FIRST NATIONAL BANK** of RICHMOND, VIRGINIA for information concerning its certificate of deposit, so arranged that one per cent. may be collected every **FOUR MONTHS** through your nearest bank or store.

Our experience proves this form for savings to be the most satisfactory plan yet devised for deposits of \$100.00 or more.

Our Capital and Earned Surplus is

\$1,600,000

JOHN B. PURCELL, President.

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FARMERS

Insure Your Buildings.

LIVE STOCK, PRODUCE, &c.

Write for booklet giving plan and explaining how you can become a member of the . . .

Farmers Mutual Benefit Ass'n's,

thus securing cheap fire protection. Property insured, \$500,000; average cost per \$1,000 per year, \$5.00. Estimated Security over \$1,000,000.

Memberships and risks limited to Eastern Va.

CHAS. N. FRIEND, Asst. Agent, Virginia Division.

CHESTER, VA.

ORGANIZED JANUARY 9, 1899.

WANTED

- Bills to Collect -

In all portions of the United States. No collection. No Charge. Agencies wanted everywhere. 25 years' experience—**PAIMORE'S COLLECTION AGENCY**, 511 Main St., Richmond, Va.

Northern Virginia Farms

Here are a few Bargains

63.—516 acres. Natural Blue Grass land. About half of the place well set in grass; over 100 acres in old sod; splendid fences; water in all the fields; two running streams through the farm. Elegant young orchard, in full bearing; apples, peaches, pears and cherries. Farm is situated in a refined neighborhood, on a good, public road, with an elegant view of the mountain, and a broad stretch of cultivated land. Land is a little rolling, has about 100 acres of fine timber. This farm has the reputation of making fat cattle and sheep; situated 4 miles from the station, 1 mile from church, stores, mill and postoffice; 25 miles from Washington, by pike. Dwelling is a good 5 room house, with good, deep well in the yard, new sheep barn, good stable, corn house, and other out-buildings in good repair. The owner is getting old, and wants to sell. Price, \$8,000, on very easy terms.

No. 98.—132 acres. Every acre fine land, smooth and free from stumps, washes and waste places. Nearly all in grass. Nice clear stream running through the place. Two acres in orchard. All kinds of fruit. Land is heavy chocolate soil, easy to work, and produces abundantly. Has 5 acres of timber, rest is cleared and in good state of cultivation. Situated on a macadamized pike leading in to Washington. 20 miles from Washington. Dwelling is a new 8 room house, handsomely furnished, with good cool well at the back door, new barn just completed, new corn crib, good granary, hen houses and hog house. Situated in an elegant neighborhood of refined Virginians, close to schools, churches and store.

Price, \$5,500. Terms to suit.

No. 115.—This is an up-to-date brick and tile business, situated on the railroad with 10 acres of fine brick clay. The plant contains the following machinery, viz: 1 iron brick machine, 1 iron tile and combination machine, 3,000 drying pallets with sheds and frames, barrows, carts and tools. Everything in position to work. Dwelling is a new 8-room house, good water and with an abundance of fruit trees and grape vines. Price, \$3,700.

No. 116.—Contains 350 acres, 4 miles from 2 stations and electric R. R. 100 acres cleared, the balance is in timber; situated 1 mile from school and church. This land is in the best fruit section of Fairfax county. The land is a good quality of sand and loam, and rarely ever misses fruit. The buildings on this property are a little out of repair, but are tenable. This is remarkably cheap property, and can be made a nice estate with the right man to manage it. Price, \$3,300, one-third cash.

Send for my new list.

WM. EADS MILLER, Herndon, Va.

THE FREE SEED SCANDAL.

The fact that the farmers throughout the country have made up their minds that Congress must give them really rare and valuable seed in place of the common squash and turnip seed now distributed, has been further emphasized by the action of the Kentucky State Grange and the Farmers' Institute last week in unanimously adopting resolutions condemning the present method of free seed distribution and calling upon Congress to give the money now appropriated for that purpose "toward the upbuilding of our agricultural colleges and experimental stations, the development of important crops and the advancement in education pertaining to agriculture."

When this matter was before Congress last year several members of the Kentucky delegation said on the floor of the House that the farmers of Kentucky insisted on receiving free peas, beans and turnip seed, and gave the attitude of Kentucky farmers as the reason why they voted for this appropriation. The action of the State Grange and the Farmers' Institute should conclusively prove to their representatives in Congress that they were mistaken and that the farmers do not want five-cent packages of well-known and common varieties of garden seeds, but do want the money advantageously expended. The action of the Kentucky farmers is in line with that of the National Grange and the National Farmers' Congress and hundreds of other State and local bodies. It is in line with the recommendations of Secretary Wilson, of the Department of Agriculture. At the last session of Congress Representatives Bennett, Hopkins, James, Rhinock, Richardson, Stanley and Trimble, all of Kentucky, voted for free seeds. Representatives Stanley and Trimble were especially active in behalf of the appropriation. What they will do now in view of the action of their constituents remains to be seen. The time is going by when Congressmen can blind their constituents to the real purpose for which the Department of Agriculture was instituted by making appropriations to distribute free pumpkin seed over the land.

CONGRESSIONAL FREE SEEDS BONFIRE.

Those who are conducting the anti-free seeds campaign to break down the custom that has grown up in Congress of appropriating large sums yearly to distribute common garden and flower seeds, have received a powerful object lesson from Brooklyn, N. Y. A short time ago a bonfire was made of more than ten thousand packages of the free seeds that had been sent out, but for which no use could be found by the recipient. He was burning them to get them out of his way. Before they were all destroyed a bushel or more of the pack-

PARTNER WANTED

With a view of partnership, wish to communicate with a steady, hardworking person (married preferred) to take charge of an orange grove in Cuba (about 1,000 trees coming into bearing), one that is accustomed to country life and knows how to plough, harrow, etc.; \$1,000 to \$2,000 cash required, balance easy.

WILLIAM HOGGE, Mayfield Orange Grove, Manzanillo, Cuba.



**\$500
BUYS
A
FARM
in Virginia
Complete**

With comfortable three-room cottage like out. These 25-acre poultry, fruit and vegetable farms are only two miles from Waverly, Va., a modern little town on the N. & W. Ry., midway between Norfolk and Richmond. Climate, water and markets for produce cannot be excelled. Write for further information and for lists and booklets showing farms and plantations from \$10 per acre up. F. H. LABAUME, Agri. and Ind. Agent, Norfolk & Western Ry., Box 500, Roanoke, Va.

Small Tracts of Land Near the Sea, for Sale.

Our farm is too large. We offer a portion in "blocks of five" acres up, to suit purchasers. Well located. The sea; summer and winter resort; two electric railways, three miles off, one electric railway, one mile off; R. F. D. at the front gate. School, church, depot, stores, post-office one mile. Good neighbors all around. Norfolk thirty minutes away by electric railway; cars every hour. Five-cent fare to the sea; free. Will exchange for desirable real estate up to \$4,000 value. Larger properties can be had near by if wanted.

A. JEFFERS, R. F. D. 1, London Bridge, Virginia.

Farms, Timber Lands, Town Properties.

Send for my new list of choice bargains in real estate situated in ROCKBRIDGE, BATH and AUGUSTA COUNTIES. All information cheerfully and promptly answered. Livery, etc., free to those who mean business.

J. W. GUINN, Goshens, Va.

VIRGINIA FARMS AND TIMBER LANDS.

We have a good selection of nice farms, in large and small tracts, and prices from \$200 per acre up, on easy terms. GOLD and SPOON, 1501 E Main St., Richmond, Va.

A BEAUTIFUL

VIRGINIA FARM

One of the finest small farms near Washington, good neighborhood and fine farming section. The farm is improved by an old-fashioned house of 9 rooms, a nice well-shaded lawn, all kinds of fruit and berries, a very large conveniently-arranged barn, 2 corn houses, granary, carriage house and all other necessary outbuildings. Farm contains 108 acres, of which 90 acres are cleared, well watered, fenced with best Page wire fencing and under highest state of cultivation and specially adapted to wheat, corn and grass; will yield an average of 50 bushels of shelled corn per acre; 2,000 bushels of shelled corn have been raised on this farm in a single year. A very desirable and well-kept property and one which will yield a nice income without one dollar for improvements. Located two miles from the town of Vienna, Va.; steam and electric cars. If you are looking for a strictly up-to-date, well-kept farm at a price that is really a bargain, let us show you this one. Price only \$3,900.

ATKINSON & BALLARD CO., Inc.,

William H. Lanham, President,
621 Thirteenth Street, N. W.,
Washington, D. C.

For Rent.

A 700-acre Farm 12 miles west of Richmond, Va.; perfectly healthy locality; 200 acres finest James River low grounds, uplands good; pastures of the best; entire farm fenced; well ditched last spring.

WILL SELL Mules, Horses, Cows, Hogs, Sheep and all modern Farm Implements, together with Corn and Stover. An excellent opportunity for a good farmer. Best references required. Illness the reason for breaking up. Address BOX 360, Richmond, Va.

A WINTER HOME

FOR SALE OR EXCHANGE.

Eighteen miles southwest from Palatka, Fla., on the Atlantic Coast Line, half mile from station; a neat cottage, three good sized rooms and closets, front and back verandas and kitchen; connected therewith a five-acre grove of bearing trees—orange, tangerine, grape fruit, peaches and grapes; pure water and beautiful location.

Apply to W. B. F. LEECH, Oakdale, Va.

Old Virginia Farms.

CLIMATE AND PRODUCTIVENESS UN-
EQUIBBLED. LARGEST SALE LIST IN
THE SOUTH. FOR FULL PARTICULARS AND
FREE CATALOGUE ADDRESS

CASSELMAN & CO.
RICHMOND, VA.

Virginia Properties.

100 Bluegrass Stock Farms.

200 select Tidewater places.

200 choice country homes.

10 hunting preserves.

Illustrated Register free.

H. W. HILLBARY & CO., Charlottesville, Va.

Virginia Farms.

Farms of any size with improvements.

Prices in reach of all. Free list.

PORTER & GATES, Louisa, Va.

Always mention The Southern Planter when writing to advertisers.

ages were taken to a seed dealer in New York. He became interested in looking up the history of the varieties represented, as, under the act of Congress, they were classed as "new, rare and valuable seeds." A searching of seed catalogues developed that one variety of parsnip, two of lettuce, three of turnip, one of tomato, one of onion and two of radish had been catalogued as long ago as 1879. One of lettuce, one of tomato and one muskmelon came into use in 1884. Five other varieties of lettuce were introduced between 1875 and 1890. The newest variety of seed was an onion, first introduced in 1899, while the oldest was traced back thirty years, and its first introduction is lost in antiquity. Not one variety was found that was either "new," "rare" or "valuable." Most of them had long since been abandoned by dealers to give place for improved varieties.

Farmers' organizations in all parts of the country are taking active and decisive steps to express their disapproval of this farce of pretending to favor the agricultural class by distributing common varieties of garden seeds. Farmers would welcome the introduction of new and rare seeds, that they might improve their own productions, but they look upon this attempt of Congress to palm off on them varieties that have been discarded for a score or more years, as new, as an insult to their intelligence.

PURE-BRED AND SCRUB STOCK.

Editor Southern Planter:

It is a puzzle that I cannot solve, but perhaps you can: My advertisements in your journal bring me lots of letters—nine out of ten want prices on pure-bred stock of the best conformation and registered. Now, I think they (the writers) take me for a philanthropist, fool or a fakir, and I am not at all certain which it is. If any one of the three, I am positive that I am neither the former or the latter, but may be a fool, and like most fools fail to recognize the fact.

I cannot buy first-class grades for what a great majority of these correspondents expect me to sell them pure-breds.

One poor man wrote me, after I had priced him a couple of Percheron mares and a Shorthorn bull calf, that "he had seen one of my articles in which I claimed that the cost of raising a pure-bred was less than the cost of raising a scrub," and he, I think, expected me to price pure-breds cheaper than he could buy scrubs for.

Your journal, though, is doing a lot of good by enlightening the ordinary farmer and showing him the path to prosperity by improving his stock, etc.; but it cannot all be done in a day.

May your paper live long and prosper, is the wish of one who has profited by it. Yours truly,

JOHN F. LEWIS.

MARYLAND, VIRGINIA

FARM BARGAINS.

Fine stock, dairy, grazing, fruit and general utility farms; 2,000 places to select from. Washington is the best market in the country, and this section is superior to all others for the farmer, dairyman and poultryman. Full information and catalogue free. THE SOULE CO. (Inc.), 630 Louisiana Avenue, Washington, D. C.

SPLENDID FARM

of 160 acres, within 8½ miles of Richmond, for sale. If you are looking for a place on which to make money, this is a fine opportunity. Well adapted for stock feeding or dairying, possibilities for the latter are unlimited. I am retiring on what this farm has made for me. For particulars, write to R. W. G., care Southern Planter.

Free! Free! What?

The largest and best selected list of farms in Virginia. For full particulars send for free catalogue describing James River Valley Stock Farms, a fine list of small Truck Farms near Richmond, also Fruit and Truck Farms in Tidewater District of Virginia, where fish and oysters abound. Agency established 1875. Address W. A. PARSONS & CO., C. and O. Main Street Depot, Richmond, Va.



STOCK, GRAIN, GRASS AND POULTRY FARMS FOR SALE.

\$5 to \$15 per acre on the Eastern Shore of Maryland. Mild Climate and fertile soil. Send for catalogue.

S. P. WOODCOCK, Salisbury, Md.

VIRGINIA
REAL ESTATE

If you wish to sell speedily, or want a home or a 50 to 100 per cent. investment, or an exchange anywhere, call on or write J. NELSON GARNETT, Culpeper, Va.

Virginia Farms

A SPECIALTY.

Write me your wants.

J. E. WHITE, Charlottesville, Va.

"The Land Man."

VIRGINIA FARMS

ALL SIZES AND LOW PRICES.
IMPROVED AND UNIMPROVED.

Send for Free Catalogue.

J. R. Hockaday & Co. Richmond, Va

Virginia Farms

MOST SELECT LIST, and in all sections of the State.

FREE CATALOGUE.

R. B. CHAFFIN & CO., Inc.

Richmond, Va.

FINE FARMS

In the great fruit grain and stock section of VIRGINIA. Best climate and water in the U. S. Near great markets, with best educational advantages. For further information, address A. REMARKABLE IMMIGRATION CO., San't. B. Woods, Pres. Charlottesville, Va.

THE RESULTS FROM DESTROYING TIMBER.

"There are parts of Asia Minor, of Northern Africa, of Greece and even of Alpine Europe, where the operation of causes set in action by man has brought the face of earth to a desolation almost as complete as that of the moon; and though, within that brief space of time men call the 'historical period,' they are known to have been covered with luxuriant woods, verdant pastures and fertile meadows, they are now too far deteriorated to be reclaimed by man; nor can they become again fitted for human use except through great geological changes, or other mysterious influences or agencies of which we have no present knowledge, or over which we have no prospective control.

"The destructive changes occasioned by the agency of man upon the flanks of the Alps, the Apennines, the Pyrenees and other mountain ranges in Central and Southern Europe, and the progress of physical deterioration, have become so rapid that, in some localities, a single generation has witnessed the beginning and the end of the melancholy revolution.

"It is certain that a desolation like that which has overwhelmed many once beautiful and fertile regions of Europe awaits an important part of the territory of the United States, unless prompt measures are taken to check the action of destructive causes already in operation."—G. P. Marsh, in Man and Nature.

A FEW OF SAM JONES' FAMOUS SAYINGS.

"Many a fellow is praying for rain with his tub wrong side up."

"Repentance is the first conscious movement of the soul from sin toward God."

"Thank God, this old world has never seen the time when it did not take off its hat and make a decent bow to a good woman."

"Let me say to you: If you can't help but one family in town, let that be the family which needs the help. I have a profound contempt for folk who are always helping those who need not any help."

"Religion is like the measles; if it goes in on you, it will kill you. The trouble with a great many Christians in this city is, religion has gone in on them. Keep it broken out on hands, feet and tongue."

"Everybody ought to keep good company. There is not an angel in Heaven that would not be corrupted by the company that some of you keep."

"The greatest rascals are those who are scrupulously honest. If I see a man walk across town to pay a nickel, I watch him."

"Whiskey is a good thing in its place, and that place is in hell. If I get there I will drink all I can get, but I won't do it here."

Farm Properties.

Below, I give a few samples of the many valuable and desirable Farm and Dairy Properties I have for sale. If interested parties will come and let me show them my offerings, I am absolutely certain that I can please them beyond the price. I can't doubt these properties will enhance in value very rapidly from now on. Come and look over the ground yourself.

No. 555.—Near Burke Station; one tract most all cleared, and 19 acres in timber. These places are 1 mile apart; 3/4 mile from railroad and church; half mile from school. If sold right away will take \$300 for the two places.

No. 556.—Near Jermantown and about 1 mile from the electric railroad; 22 acres, 2-room house, nice young orchard of 600 trees; near school, church and store. Price, \$550. No. 557.—At Merrifield, about 8 miles from Washington; 14 acres, 8-room house, 3 porches and cellar; barn, 22x32; all necessary outbuildings; well on the porch; partly fenced; 500 damson trees, 200 apples of all kinds, peaches, pears and cherries; half mile from railroad, school, church and store. Price, \$3,250; one-half cash, the balance to suit. Will exchange for other property.

No. 558.—Near Fairfax, P. O., about 10 miles from Jermantown; 85 acres, 40 clear, the balance in timber; nice 10-room house, with porch all around it; good barn and most all kinds of outbuildings; in good condition; place is well watered and well fenced; 500 damson trees, 200 apples of all kinds, peaches, pears and cherries; half mile from railroad, school, church and store. Price, \$6,000, on easy terms. This farm is called Mount Pleasant.

No. 559.—One mile from the electric railroad at Oakton; 53 acres, 40 clear, the balance in timber; old, 6-room house; new tenant house of 5 rooms; barn, 32x42; 2 chicken houses, corn house and all other necessary outbuildings; well at the door; plenty of running water and springs; 800 apple trees, pears, peaches and plums. Price, \$4,500, on reasonable terms. The land is in a fine state and will make a nice poultry, fruit and truck farm. The owner has sold \$1,000 worth of eggs at wholesale price from this place in one year.

No. 572.—Four hundred acres on the Rappahannock river, 5 miles from Fredericksburg; there are no buildings on this place, but it has a beautiful building site overlooking the river; 350 acres of cleared land in a good state of cultivation; the rest is in good oak timber. This farm is well adapted to most any kind of farming, including trucking. There are fine shipping facilities. This locality offers every inducement to a practical farmer. Mild winters, long seasons and cheap labor. Price, \$25 per acre on easy terms. This place must be seen to be appreciated.

No. 573.—Nice farm near Danversville; 143 acres, 135 cleared, balance in oak and pine timber; new 8-room house; barn, 20x40, sheds on three sides; all necessary outbuildings; water in every field; well fenced; most all kinds of fruit; 2 1/2 miles from railroad, 1 mile from school, church and store. Price, \$25 per acre; \$2,000 down, the balance in 5 years.

No. 603.—In Gloucester county; 334 acres, 315 cleared; 6-room house and bath; water in the house; 5-acre lawn; 3 barns, and 25x40, 20x40 and 36x40; tenant house and all necessary outbuildings; well fenced and well watered; divided in nine fields and there is water in every field; 5 acres in peaches, pears, apples, blackberries, raspberries, gooseberries and strawberries; 1 mile from railroad, near school, church and store. Price \$7,500. This is a fine farm; will make 2 1/2 tons of hay to the acre. Four hen houses on this place.

No. 607.—On the pike, 2 miles from the electric railroad, at Fairfax; 77 acres, 55 cleared and in a high state of cultivation; 6-room house, new barn and all necessary outbuildings in good condition; well at the door, spring nearby; most all kinds of fruit; well fenced. Price, \$4,750, on reasonable terms. This is a nice farm.

No. 615.—At Edgeline Station of the railroad—1 1/4 miles from Vienna; 54 acres; 7-room house, nicely located; 4-room tenant house; barn, 60x40; all necessary outbuildings; fine well of water near door; well fenced and watered; most all kinds of fruit; near school, church and store. Price, \$4,500, on reasonable terms. This is a very desirable place.

No. 623.—Nice Colonial estate near Lorton Station; 200 acres; 17-room brick and frame house; large basement barn, large horse stable, carriage house, carpenter shop, hen house, corn crib; 4-room tenant house; well at the door; orchard consists of 500 peach, 150 apple trees, 150 grape vines; good pear, plum and damson orchard; 2 miles from railroad station; school adjoins the place. Price, \$5,000. If sold right away will include 5 head of horses, 7 head of cattle, 1 farm and spring wagon, 2 buggies, set of driving and work harness; 2 mowing machines; 2 harrows; 2 disc harrows, 2 riding and 1 walking cultivator, all other tools used on the place this year. This is a fine bargain.

No. 217.—Sixty-seven acres near Sideburn; 7-room house; well at the door; barn and all necessary outbuildings; a variety of fruit; nice, shady lawn. Price, \$2,500. This will make a very desirable home.

No. 545.—Near Great Falls; 152 acres, 100 clear; 8-room brick and frame house; some outbuildings; running water in every field; some fruit; near electric railroad. Price, \$40 per acre.

No. 572.—Four hundred acres near Fredericksburg, overlooking the river; 350 acres cleared and in good cultivation, the balance in timber. Price, \$25 per acre. This will make a nice farm; fine place for trucking; good shipping facilities. Will sell on easy terms.

No. 593.—Fine dairy farm; 97 acres, highly improved, on the Potomac river, 4 miles from Alexandria; the Mount Vernon electric railroad runs through the place; large house, halls and bath; steam heat; hot and cold water; large basement barn; stanchions for 52 cows; box stalls; individual water boxes; cement floors; steel track for feed cars, silos, grinding shed; wagon house, milk-cooling house, can-washing shed. The house is finely situated, commanding the finest view of the river. This is a fine farm; must be seen to be appreciated. Price, \$17,000.

No. 594.—Two hundred and nineteen acres; 1 mile from Mount Vernon Gate; 12-room house, 2 good cellars; large barn, wagon sheds, sheep sheds, ice and cold water, well. This is a fine farm; well adapted for stock or dairy. Price, \$13,000.

No. 596.— Loudoun county farm; 875 acres; 340-room dwelling; 6-room tenant house; barn, 100x50; room for 100 head of stock; well equipped dairy, steam separator, necessary cans to run dairy; 30 head of fine milk cows, 12 head of heifers, 5 heavy work horses; 155 acres in corn, wheat and clover. Is thoroughly equipped with every kind of farming implements, consisting of corn harvester, wheat harvester, mowing machine, grain drill, 12-horse power traction engine, together with necessary wagons, plows, harrows, etc. Large crop of corn and a number of tons of hay on the place. Land is in a high state of cultivation; produces 10 barrels of corn to the acre. Price, \$15,000. Just as it is. This is a great bargain.

No. 623.—Near Fairfax Station; 140 acres, 75 cleared; 6-room house; barn and all necessary outbuildings; fine well at the door, spring nearby; most all kinds of fruit; well fenced; young orchard of 350 trees; 1 mile from school. Price, \$3,000, on reasonable terms.

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Farmers and Stockmen.

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"There is more religion in laughing than crying. If religion consists of crying, I have the best boy in the world."

"I have known women too poor to own a pair of shoes; but I never know one too poor to own a looking-glass."

"The biggest fool God's eyes ever looked upon is the woman who stirs the toddy for her husband."

"Old sinners are not satisfied with us unless we live better than they do."

"If my daughter only had one dress, that should be a whole one. If it lacked anything at all, I would cut it off at the bottom, and not at the top."

"You have no more right to flaunt your diamonds and your riches in the face of the poor than you have to shake bread in the face of a hungry man and not give him any of it."

CHRISTMAS IN BERLIN.

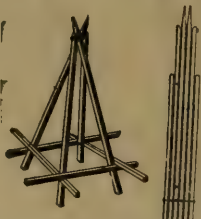
"TRAVELER."

While the blazing yule log and plum pudding also alight make the English Christmas picturesque, and while in America we observe the spason in a lavish way, yet it is to Germany we must turn to find it most widely and enthusiastically observed. The Germans, by nature, invest every point of interest with a great deal of sentiment, and they still retain a great many quaint old Christmas customs which have come down to them from ancient Norse legends or the Scandinavian mythology. A festival of mutual good will and exchange of gifts existed with them before the Northern tribes became converted to Christianity.

Berlin, the capital of the German Empire, and the center of the national life, puts on its holiday dress early in December. The shops there are really wonderful. The small places display every sort of pretty true, suitable for Christmas remembrances, at the most reasonable prices. Naturally, there are great collections of steins (beer mugs), which the Germans call "maas," and pewter drinking vessels, adapted to the needs of a convivial race. Then, "new art" runs rampant and produces posters, bric-a-brac and jewelry after its own unconventional style. The calendars are so varied and numerous that a volume might be written describing them. For those who are able to present handsome gifts there is an abundance of elegant articles in Dresden china and Bohemian glass.

As Christmas approaches the pavements become outdoor bazaars. In some German cities there is a Christmas market with booths in the open squares but in Berlin men stand on the sidewalks and sell mechanical toys, such as a kicking mule, soldiers who march or a fire engine and hose. Country children, with eyes amazed by the sights of the city, sell evergreens, holly and mistletoe from door to door, and wagon after wagon empties its load of fir trees to eager

THE BELL HAY CURING RACK



(Patented October 15, 1906.)

Solves the problem of curing Pea vine, alfalfa or other hay almost regardless of weather conditions, as the racks give interior ventilation and keep hay from touching ground, thereby causing it to cure out nicely when other methods fail. One handling completes the work and the hay is safe. Racks fold into handy package for storage and will last many years with care. The cost to make and use is very light, and every farmer should procure the right to use them and get them made in spare time of winter and be ready to meet the coming hay crop.

PRICES.

To make and use any number of racks, \$10.00
To make and use 100 racks..... 5.00
To make and use 50 racks..... 2.50
AGENTS WANTED IN EVERY COUNTY.

Address H. E. BELL, Burreville, Va.

Agricultural Lime

ALL GRADES.

CANADA UNLEACHED

Hardwood Ashes.

Any quantity desired and at bottom prices.

T. C. ANDREWS & CO.,
Norfolk, Virginia.

PHOSPHATE ROCK.

Use untreated, finely-ground Phosphate Rock, containing 35 per cent. phosphoric acid, mixed with your stable manure, and increase its value over 66 per cent. For prices write

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FUMA

kills Prairie Dogs, Wood chucks, Gophers, and Grain Insects. "The wheels of the Gods grind slow but exceedingly small." So the weevil, but you can stop their grind with

Fuma Carbon Bisulphide as others Fumigate poultry houses and kill hen lice.

EDWARD R. TAYLOR, Penn Yan, N. Y.

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Year and upwards can be made taking our Veterinary Course at home during spare time; taught in simplest English; Diploma granted, position obtained successful; students cost in reach of all; satisfaction guaranteed; correspondence. ONTARIO VETERINARY CORRESPONDENCE SCHOOL, Dept. 17, London, Canada.

There Are REASONS WHY

Our catalogue should be in the hands of every reader of The Southern Planter. It is a book of one hundred and sixty pages and full of interesting illustrations and descriptions of machinery and other articles which the farmer, gardener, poultryman and suburban resident has to buy from time to time, and

He can buy them from us better than elsewhere. Ours is the largest house of its kind in the East. Do not fail to get catalogue. You will be in postal will bring it. Address Department 8.



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KIL=☉=SCALE

The great San Jose Scale Destroyer. A boon to the fruit growers of this country. It has saved thousands of trees and is worthy of the attention of every fruit grower. We solicit a trial order and we are satisfied that it will prove its efficiency. Write for special circular, giving full particulars.

Nitrogen Culture

The results that have been obtained from the use of this Nitrogen Collecting Bacteria prove conclusively its great value. Convenient and economical. Get our special circular if you are going to sow any clover, peas or beans.

Griffith & Turner Company

SEEDSMEN AND
FARM MACHINERY

205-215 N. Pasa St. BALTIMORE, MD.

purchasers of Christmas trees. On Christmas Eve the whole population seems to be out of doors, and the stout, comfortable German's faces all beam with good nature and happiness. Broad as "Unter den Linden" is, it is crowded, and you have to fight your way through Friedrich or Leipziger Strasse in the shopping district. On this day the toy and pastry shops reach their climax. The shopkeepers display all the most beautiful Nuremberger dolls and toys, of which we see in this country poor imitations, marked "Made in Germany." Words can scarcely describe the glories of a German Christmas cake as it rises, tier on tier, into a tower, iced all over in flowers and decorated with conserved fruit, while from the top an angel or dove looks down. "Marzipan," a sort of paste, between cake and candy, plays an important part amongst the Christmas dainties, and small pigs made of it are given for luck. "Pfeffer kuchen," a fiery kind of ginger bread, is largely used at Christmas, together with every kind of fancy cake and bonbons that ingenuity can devise.

The Christmas tree is exhibited on Christmas Eve, after dinner, all glittering with candles and tinsel. The family and guests gather around it and unite in singing a Christmas carol, and then the gifts are distributed. Then they all go to the servants' quarters to see their gifts, of which the latter are immensely proud, and justly so, for a faithful servant receives a purse of money (about \$10) as well as new bedding, towels and aprons for a year, and often the most substantial flannels dress and cloak. Parents, in bringing a young girl to hire inquire more carefully as to what she will receive at Christmas than they do about her wages. After the gifts have all been examined and admired, the family return to the saloon, where there is a bowl of hot Burgundy punch, served with various sweets, and a scene of jollity sets in and lasts nearly all night. There is music and dancing and trying of fortunes, interspersed with more eating and drinking (for with all their sentiment and romance, the Germans are gross eaters and drinkers) till daylight steals in at the windows.

Christmas Day is rather a time of rest and peace than of great festivity. At breakfast one must eat a sweet bun instead of the usual "brodchen." At dinner there is carp (considered a great delicacy) as well as our own holiday dishes, especially the American turkey. Part of the day is given to church-going, as with us, and then a stroll to the "Their Garten" (zoo) is a popular thing. In the evening you may visit your favorite cafe on the Linden and listen to the music over a glass of beer. On the succeeding days of the week there are dances and dinners and a whirl of gaiety till New Year's Eve, when the Christ-

SEEDS.

John J. Buffington & Co.,
Wholesale Seed Merchants,

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Grass and Field Seeds.

Clovers all varieties, Timothy, Sand or Hairy Vetch, Spring Vetch, Dwarf Essex Rape, all kinds Seed Grain, Cow Peas, Millets, Canada Peas, etc.

SEED PEAS

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Weekly quotations to merchant trade. Will appreciate your inquiries.

We are in the market for COW PEAS of all varieties.

have stood the test for over 50 years, and are still in the lead. Their absolute certainty of growth, their uncommonly large yields of delicious vegetables and beautiful flowers, make them the most reliable and the most popular everywhere. Sold by all dealers. 1907 Seed Annual free on request.
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IMPROVED COTTON SEED.

I offer about 1,000 bushels of King's Improved Cotton Seed, raised especially for seed to the highest standard of perfection. No frost-bitten or storm seed in it. Price, 60c. f. o. b. here.

SUGAR LOAF COTTON FARM,
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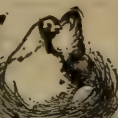
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STRAWBERRY PLANTS.

Fruit trees, etc. strawberry plants, \$1.25 per 100 in 5,000 lots or over, trees 5c. each. Send for free catalogue, JOHN LIGHTFOOT, East Chattanooga, Tenn.

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Keep hens healthy, blood red and pure, bowels open, digestion good, and eggs will come.

"As for keeping poultry in condition and as an egg producer, it stands without an equal. B. H. FAINE, Fairview, Ohio."

That's the mission of

Prussian Poultry Food

Try it and see. A dozen eggs at present prices buys a package containing 750 feeds. Best guaranty against all diseases.

25c and 50c Packages.

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Liquid or Powder, are sure death to lice, mites, etc.

Get "POULTRY PROFITS" our helpful and practical book. Free if you write what stock you own.

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mas trees are again lit up to celebrate the passing of the old year and arrival of the new. At midnight every shutter flies open and every good Berliner drinks "Prosit neu jahr" out of the window to the glad new year.

ST. NICHOLAS IN 1907.

A MORE ATTRACTIVE LOT OF GOOD THINGS THIS YEAR THAN EVER BEFORE.

The girl or boy who grows up without the companionship of St. Nicholas misses a pleasure and an influence for good, for which nothing in later years can ever atone. Make St. Nicholas your children's friend in 1907.

Its pages will be rich the coming year with a series of fairy tales by Frances Hodgson Burnett—more delightful fairy stories were never written. The author of "Mrs. Wiggs of the Cabbage Patch" has written a serial story for the boys who read St. Nicholas; there is to be a special Christmas story for the girls by Kate Douglas Wiggin, whose Rebecca is dear to everybody. There is to be at least one story, "Abbie Ann," from the author of the Emmy Lou stories; more of Pinkey Perkins' adventures, a new serial by Ralph Henry Barbour, a thousand illustrations by the best illustrators of the day, an abundance of short stories, travel sketches and popular science articles, and the St. Nicholas League the most enjoyable and stimulating club of young folk in existence.

Make St. Nicholas your children's friend in 1907.

SANTA CLAUS HAS A GUN THIS YEAR.

A special wireless telegram from the North Pole advises us that Santa Claus this year is loaded down with guns, not only for boys and girls, but for the boys and girls of larger growth—in fact, for all who enjoy a life in the open and who desire to train the hand and eye to accuracy in the wholesome sports of hunting and target shooting.

We presume that Santa Claus has been stirred up particularly by the advertising of the Stevens rifles and shotguns that are appearing in our advertising columns about this time. If you will take a look at them you will not wonder why Santa Claus chooses Stevens firearms for his presents this year.

If you are interested to learn about the wide range of manufacture in Stevens firearms, their high-grade quality, popular prices and suitability for young or old of either sex, read the advertisements and send for their handsome Christmas catalogue, which they offer.

Johnston Co., N. C., Sept. 1, 1906.

I think THE SOUTHERN PLANTER is the best farm journal printed to-day. ALEX. CREECH.

"RARVA" MEAT MEAL

85 Per Cent. PROTEIN 7 Per Cent. FAT

IS A

POULTRY FOOD

THAT IS

ECONOMIC,
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SAOK 100 LBS. - \$3.00.

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Send for the "Rarva" Booklet.

EGGS!

To get them you must feed for them. Treat your fowls well and they will treat you well.

We have just the feed you want to make eggs this winter. MIXED FEEDS, MEAT MEAL, BONE MEAL, GRIT, OYSTER SHELLS and all the requirements for egg production. Write for our poultry list.

DIGGS & BEADLES,

Seed Merchants,

Richmond, Va.

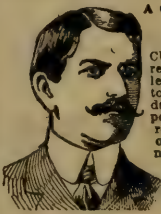
"HEADQUARTERS FOR HEN FEED."

Southern agents for celebrated CORNELL INCUBATORS, Peep o' Day and Homestead Brooders. The best machines on the market to-day. If interested in chick machinery write for our Cornell catalogue.

A GREAT DISCOVERY DROPSY

CURED with vegetable remedies; entirely harmless; removes all symptoms of dropsy in 8 to 20 days; 30 to 60 days effects permanent cure. Trial restatement furnished free or very inferior, nothing fairer. For circulars testimonials and free treatment, write

Dr. H. H. Gross's Sons
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Foutz's Superior Poultry Food

complies with all the requirements of the National Pure Food Law, in effect January 1, 1907. This is true of all our preparations. Not the changing of a single word on the packages of either Foutz's Horse and Cattle Feeders, Foutz's Kalk Care, Foutz's Worm Powder, Foutz's Liniment or Foutz's Healing Powder, is necessary to fully comply with these exacting requirements. Bearing this in mind, is it strange these preparations have for years been regarded as standard? If you own poultry, Foutz's Superior Poultry Food is an absolute necessity.

Sold by dealers everywhere, 25c. the 1/4-pound box. Send for our new price list and special offer.

THE DAVID E. FOUTZ COMPANY,
Baltimore, Md.

DEATH TO LICE—"Death to Lice" kills all poultry vermin, such as lice, ticks or chiggers, in 10 to 20 minutes. You get results immediately. Sample free. Write for full details and prices \$1.00.
THE O. E. STOCK FOOD CO.,
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U.M.C. ARROW SHELLS



POULTRY SUPPLIES.

CATALOGUE FREE.

Our catalogue contains full description and prices of all kinds of Poultry Supplies, the different kinds of recommended Poultry Foods; illustrations of the well-known

PRAIRIE STATE INCUBATORS

and Colony Brooders; Poultry Remedies and Pure-Bred Fancy Poultry.

Send for this catalogue. It will interest you.

VIRGINIA POULTRY SUPPLY CO.,
Richmond, Va.


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ALL KINDS OF

LIVE WILD BIRDS AND ANIMALS

Particularly Deer, Wild Turkeys, White Squirrels, Ducks, Swans, Bob White Quail, Grey Squirrels, Bear, Baby Raccons, Foxes, etc.; \$5 each paid for Wild Turkeys.

DR. CECIL FRENCH, Washington, D. C.



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FROG RAISING. A business that starts on small investment and brings large returns. Our new book gives you the practical knowledge. Price prepaid \$1.00. The book will teach you HOW TO BREED, FEED & RAISE FROGS.
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BOOK ON POULTRY DISEASES FREE. A healthy, strong, vigorous duck is the only kind that pays. Cooke's famous book tells you how to keep your flock in that condition. Regular price 25 cents but for a limited time free to those sending 1 cent for postage and the names of two other poultry keepers. WRITE TO-DAY.
The C. E. Conkey Co., 339 Ottawa Bldg., Cleveland, O.

ENQUIRERS' COLUMN.

BURNING VEGETATION.

Will you kindly say in next issue of *THE PLANTER* what per cent. of loss is sustained by burning over a field that is to be cultivated or to be left for grass next season. The loss in humus, I suppose, would be in proportion to the amount of vegetable matter on the land burnt. What I want to know is, what per cent. of the plant food is destroyed by burning the dried grass and sedge from land; also what damage is done to the land burned over removing humus? C. E. HARRIS.

Albemarle county, Va.

The greatest part of the value of vegetation is in the humus-making material and not in the mineral plant food which is contained therein. When this vegetation is burnt all the humus-making matter is destroyed and nothing remains except the mineral constituents. These are very small, consisting of some lime, phosphoric acid and potash, depending in quantity on the character of the growth. How small these are will be seen when we state that the whole mineral matter in a mixed hay crop, except the lime, is 0.27 per cent. of phosphoric acid and 1.55 per cent. of potash.—Ed.

SORGHUM AND COW PEAS—APPLYING LIME.

I've been a subscriber to your paper for three years, and look for each issue with much interest, regarding it as the best farm paper I've seen. The experience given in the September issue by Mr. A. T. Finch with reference to raising sorghum and cow-pea hay has made quite an impression with me. Having determined to plant a crop the coming year, would be pleased to learn through the columns of your paper by what means did he put out the 100 pounds of phosphate per acre—if by drill, what kind? Was the sorghum seed and peas mixed and sown together or separate? Were they sown with seeder or drill and what kind? What variety of sorghum is best to sow? Also would like to know if shell lime can be put out with 8-hoe grain and fertilizer drill with any degree of satisfaction.

L. A. ARMSTRONG.

Pasquotank county, N. C.

A crop of sorghum and cow peas raised for hay should be sown broadcast. The land should be well prepared and a good seed bed secured and any fertilizer needed should be sown broadcast. From 150 to 250 pounds of acid phosphate per acre will greatly help the crop, and where potash is needed apply also 100 pounds to the acre of muriate of potash. On light, sandy land potash is usually needed, but not on clay or loam soil. The seeding is best done by sowing the peas first, say three pecks to the acre, and working them in with a cultivator so as to get them well covered. Then sow the sorghum seed (Early

A Large Egg Yield

A hen—any hen—will lay a great number of eggs (some more than others) if conditions and surroundings are such as meet the requirements of her nature. Here is where your part comes in. Give the hen a regular daily portion (a penny's worth is enough for 30 hens) of Dr. Hess Poultry Pan-a-ce-a, and she will do the rest.

DR. HESS POULTRY PAN-A-CE-A

is not a food—it is a tonic, specially prepared to give "tone" to the digestive and reproductive organs, so that the maximum of food, over and above the maintenance ration, is used to make eggs. It has also a property foreign to a so-called poultry food. It is a germicide, that is, it destroys bacteria, the cause of nearly all poultry ailments. Poultry Pan-a-ce-a is the prescription of Dr. Hess (M.D., D.V.S.), is endorsed by the leading poultry associations in the United States and Canada, and is sold on a written guarantee.

1) lbs. 25c., mail or Express, 40c.
5 lbs. 2.00.
23 lbs. \$1.25.
25 lb. mail, \$2.50.
Except in Canada and extreme West and South.
DR. HESS & CLARK,
Ashland, O.
Instant Lice Killer
Kills Lice.



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Dr. Hess 48-page Poultry Book,
FREE.

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M. A. Butler, Fort Fremont, S. C., writes on Oct. 27: "I was afflicted with the worst case of tetter known, a sight to look at. I used everything on the market without relief until I found your wonderful 'Tetterine.' Now I am entirely cured." Send 50c. if your druggist doesn't have it, to J. T. Shuptrine, Savannah, Ga. Bathe with Tetterine Soap, 25c.

THE KEELEY INSTITUTE GREENSBORO, N.C.

for the treatment of THE LIQUOR, OPIUM, MORPHINE and other Drug Addictions. The Tobacco Habit, Nerve Exhaustion.

LEAF SAGE.

Wanted—Parties having pure Sage for sale will please write, giving price, FOREST HOME FARM, Purcellville, Va.



An Eczema Hand

should not be covered by a glove. A fresh antiseptic bandage every day after applying Heiskell's Ointment is all that is needed to cure the trouble, no matter how old or stubborn it may be.

Heiskell's Ointment

goes right to the spot. It cools the skin, stops the burning and itching, and cures. There is no case too obstinate. All skin diseases yield to its magical influence. Used successfully for half a century.

In all cases it is best to bathe the part affected with Heiskell's Medicated Soap before applying the Ointment. To make the blood pure and clean up the liver take Heiskell's Blood and Liver Pills.

Ointment 50c. a box; Soap 25c. a cake; Pills 25c. a box. Sold by all druggists, or sent by mail.

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Chantilly Farm OFFERS FOR SALE

Four-year-old Saddle Stallion by Chester Dare, No. 10, winner of first in 4-year-old class and champion at Virginia State Fair, 1906.

One-year-old Saddle Stallion by Kentucky Artist 1455.

One-year-old Harness Mare by Red Leaf, the greatest harness stallion in Central Kentucky.

For full description and price address
HIGGINBOTHAM BROS., Fairfax Va.

Saddle and Harness

HORSES

I offer a few very fine, handsome, sound, thoroughly trained, registered combined Saddle and Harness Horses. Write me for particulars.

Maj. GEO. CHRISMAN, R. 4, Harrisonburg, Va.

Amber or Early Orange is best), one peck to the acre, broadcast and harrow in. Lime cannot be well spread with a grain and fertilizer drill, as it will not apply sufficient per acre, and this is also very destructive to the drill. There is a lime-spreading machine on the market, but we always found the best way was to spread it with a shovel broadcast from heaps set out on the land.—Ed.

HOGS DYING.

I lost a Tamworth boar hog about 9 or 10 months of age some four months ago. In two weeks after that I lost a fine Chester sow heavy with pig. She was 4 years old. They were afflicted alike. They seemed to be all right at 5 o'clock P. M., the next morning they were dead. They seemed to get stiff suddenly and stagger in walking and in an hour or two's time would lay down and could not get up again. Died inside of twelve hours. Now, another sow, 2 years old, was taken last Saturday just like the other two, but she is still living. Seems to have no use of her body at all; moves a front foot a little and can move the head the least bit.

Can you give me any idea as to the cause of the trouble? The bowels seemed to be all O. K. The boar and first sow were running in an old peach orchard, and I thought it might have come from too many peach stones, so I moved the ones living to a grass lot. The sow now sick was one that I changed from the peach orchard.

H. J. BUHRMAN.

St. Mary's county, Md.

We have no doubt but the cause of death was hydrocyanic acid poisoning, caused by eating the peach stones, which are largely impregnated with this poison. In this view we are confirmed by Dr. Spencer, the veterinarian of the Blacksburg Experiment Station, to whom we referred the question for consideration as to whether he agreed with us on the subject. Hog keepers should be cautious in feeding peaches to hogs, as they will eat the stones.—Ed.

BUTTER-LIKE SUBSTANCE IN MILK.

Can you explain why a butter-like substance appears in cow's milk before it even cools off? Please answer in your next issue. JERRY SIMS.

Nelson county, Va.

In cows whose milk is rich in fat and where the globules of fat are large, as in rich Jersey milk, the milk is frequently partially churned in the milking and this appears in the shape of the butter-like substances you find in your milk. The substance is nothing but butter. If you will hold one of the lumps in your warm hand you will find that it will melt just as butter melts under similar circumstances.—Ed.

Make Her Pay

Good business sense tells you that every cow should return a fair percent of profit over cost of keeping.

To pay you a good profit the organs of digestion must convert the largest possible percentage of the food into bone, muscle, milk fat, etc.

If every cow, horse, sheep or pig, receives small doses of Dr. Hess Stock Food twice a day with the grain rations, they will pay a larger profit than is otherwise possible. Such medical authorities as Professors Winslow, Quimman and Finlay Dun endorse the bitter tonics contained in Dr. Hess Stock Food for improving the digestion, also iron as a blood builder and nitrates for eliminating poisonous material from the system.

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the prescription of Dr. Hess (M.D., D.V.S.) contains the above ingredients and it is

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Smaller quantities at a slight } and extreme
advance. } West and South.

Where Dr. Hess Stock Food differs in particular is in the dose—it's small and fed but twice a day, which proves it has the most digestive strength to the point. Our Government recognizes Dr. Hess Stock Food as a medicinal tonic and this paper is back of the guarantee.

If your dealer cannot supply you, we will.

DR. HESS & CLARK, Ashland, Ohio.

Also Manufacturers of Dr. Hess' Ointment
Pain-Expeller and Instant Loosener.

SPRAYING

Spay Your SOWS and
OTHER STOCK with the

Pronto Process

No Cutting, Pain or Danger. No Knife Used. Absolutely No Loss. Animals grow larger and fatten easier. Rearing Mares, Dogs and Pet Stock restrained without injury. EASY TO APPLY. Book No. 18 on stock spaying SENT FREE. Trial Box spays TEN SOWS. Price \$1.00 postpaid. Try it and increase your profits.

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Jackson Park Station, Chicago, Ill.

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Mares and Fillies for sale at all times.
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Mention The Southern Planter.

Kendall's Spavin Cure

What horseman does not know the standard cure? Infallible when taken in time for Ringbone, Curb, Splint, Spavin. Never two opinions as to its powers.

Bone Spavin Entirely Cured.

Kenton, Ohio, Feb. 20, 1905.
Dr. B. J. Kendall Co.,

Enosburg Falls, Vt.
Gentlemen:—I had a fine horse which I priced at \$200.00, which got a Bone Spavin almost half the size of a hen's egg. I used two bottles of your liniment and entirely removed the Spavin and now no one can tell one limb from another.

Yours truly,
Lawrence Althaus.

Price \$1.50 for \$5.
Greatest known liniment for family use. All druggists. Accept no substitute.
"Treatise on the Horse" free from druggists or

Dr. B. J. Kendall Co., Enosburg Falls, Vt.

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FISTULA, POLL EVIL,

and all blemishes on horses cured with

Hamer's Sure Cure.

Removes Lumps of all kinds on either cattle or horses. Cures Ringbone, Spavin, Sweeney, Thoroughpins, Wire Cuts, Cuts, Warts, Splints, Collar Bots, Scurfy Sores, Sprains or Swellings, Distemper and Lump Jaw.

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Good always, everywhere.
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No More Blind Horses for specific ophthalmic Moon Bindings and other sore eyes, Barry Co. Iowa City, Ia. have cure.

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VERY CHOICE, IN LOTS OF TEN BARRELS OR MORE.

J. W. MINER, Eastville, Va.

A Neat Binder for your back numbers can be had for 30 cents. Address our Business Department.

ORCHARD MANAGEMENT—STOMACH WORMS IN SHEEP.

1. Is it a good plan to prune and work apple and peach trees during the winter? I am thinking of ploughing the orchard in order to have that work done before spring.

2. Can you give me a satisfactory remedy for stomach worms in last spring's lambs? Coal-tar creosote is recommended, but hard to get.

B. E. WATSON.

Augusta County, Va.

1. The best system of orchard management calls for the land to be covered with some growing leguminous crop during the winter months. This conserves the fertility of the soil and protects the roots of the trees. Crimson clover or vetches make the best crop for this purpose sown in mixture with wheat, oats or rye. In the spring, say in April, this crop should be ploughed down and the orchard be kept frequently cultivated until July. This encourages growth of wood and a healthy condition of the trees. In July sow cow peas or cow peas and sorghum or millet and cut this crop for hay in September, unless the land is in a poor state of fertility, when this crop should also be ploughed down. When the cow peas are sown apply 200 pounds of acid phosphate or 500 pounds of floats and 100 pounds of muriate of potash per acre. This helps both the peas and the trees, which are large consumers of the mineral fertilizers. The potash helps to harden the bearing wood and gives color to the fruit. When the cow-pea crop is removed or ploughed down sow crimson clover, wheat, oats and rye again for a winter cover. This rotation should be continued each year until by the growth of the trees it is seen that they are in a healthy, thriving condition, but should not be so long continued as to induce a too great growth of new wood. When this is seen to be the case then sow down in grass and clover and let lay one or two years. The pruning of the trees is proper to be done during the winter months, but much of this work may be saved after the trees have been got into good shape by rubbing off the buds of young branches in the summer when they are just starting, when it is seen that they are coming where not wanted. In this way the strength of the trees is conserved and will be utilized in fruit-bearing and much winter pruning will be avoided.

2. Gasoline is the best remedy for stomach worms in sheep. In our July issue, page 557, will be found an article giving advice on the treatment of these parasites.—En.

ANGORA GOATS—SHEEP.

Is there any money in raising Angora goats? Which is there the most money in, goats or sheep? I have some mountain land that I am thinking of fencing in.

J. W. WAID.

Angora goats can be profitably kept

Warranted to Give Satisfaction.

Gombault's Caustic Balsam



Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for

Curb, Splint, Sweeney, Capped Hook, Strained Tendons, Founder, Wind Cuts, and all lamenesses from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Blisters from Horses or Cattle.

As a Human Remedy for Rheumatism, Sprains, Sore Throat, etc., it is invaluable. Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address

The Lawrence-Williams Co., Cleveland, O.

Ringo-Bone

There is no case so old or bad that we will not guarantee

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to remove the lameness and make the horse go sound. None refund if it ever fails. Easy to use and one to three minute applications cure. Works just as well on Sweeney and Bone Spavin. Before ordering or buying any kind of a remedy for one kind of a blemish, write for a free copy of

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A new series of papers containing information, with special attention to the treatment of blemishes. Handsomely bound, indexed and illustrated. Make a right beginning by sending for this book.

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ABSORBINE

Cures Strained Puffy Ankles, Lymphangitis, Enuresis and Swellings, Lameness and Ailays Pain Quickly without Blistering, removing the hair, or laying the horse up. \$2.00 per bottle, delivered, with full directions. Book 3 B Free.

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DEATH TO HEAVES
NEWTON'S HEAVE AND COUGH CURE
A VETERINARY REMEDY
14 YEARS OLD. Cures Heaves, Coughs, Sore Throats, etc. \$1.00 per bottle. Sold by druggists or prepared. Send for booklet. The New Home Dry Co., Toledo, O.

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an an poultry profit in raising Broilers, Roasters and Capons, and become a *star* in Chick Raising on secure profitable results in Egg Raising. Cyphers Incubators and Brooders are so recommended by leading Agricultural Experiment Stations the world over.

For new 244 page book on "Poultry Profit to you" how to raise a successful poultry business—FREE if you name this paper and send address of two acquaintances interested in poultry keeping.



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Brooders at prices too low to quote here. You cannot find a better at any price. Why pay more than let us save you money. Remember these are not "cheap" machines, but of the highest grade. Send for guarantee and our big 188 page book "Poultry for Profit." It's Free.

J. W. MILLER CO., Box 312, Freeport, Ills.



on land which will not keep other stock. They are browsing animals and require a pasture of woody undergrowth, which they will clear up better than men can do it. Your mountain land would, no doubt, carry sheep, and these would be the proper stock to keep.—Ed.

DATE OF MONTH OF DAY IN 1877.

Please state what day of the month did the third Saturday of June, 1877, fall on. I cannot get along well without THE SOUTHERN PLANTER. Bedford county, Va. T. C. D. The 16th day of June.—Ed.

CHICKEN CHOLERA.

Please tell me what is the best remedy for chicken cholera?

Mrs. J. D. JENKINS.

We do not believe that there is an effectual cure for chicken cholera, at least we have never found one and we have tried most of the remedies suggested. The great thing is to at once remove all the healthy fowls to clean quarters and uninfected land as soon as the outbreak commences and then to kill off all infected fowls and burn them or bury them deeply and thoroughly disinfect the quarters they have occupied with carbolic acid and limewash and to turn over the land they have run on. A few drops of carbolic acid should be given in the drinking water until danger of further spread of the disease is past. Lysol is said to have been used with success as a remedy, but we have not tried this.—Ed.

OSAGE ORANGE.

Will you kindly tell me through the columns of your valuable paper how and when and in what manner to propagate the Osage orange for hedge. I have about half a mile and wish to extend it. SUBSCRIBER.

Hanover county, Va. The plants are raised from seed. The seed balls should be gathered in the fall and the seed be got out and dried and kept until spring. Then soak in warm water for a few hours and sow in good soil.—Ed.

COLT WITH SORE HEEL.

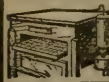
Last February I had a 2-year-old colt to get its heel bruised, which caused it to be sensitive and sore. I doctored it for scratches but it does not seem to get any better. He has been running out in pasture all summer and is no better, worse, if anything. The sore is very offensive and looks like it might be a touch of Grease heel. Any remedy you give me will be greatly appreciated.

A READER.

Sullivan county, Tenn. We think it likely that the sore heel has probably been poisoned during the summer by the parasitic fungi, which has been so prevalent this summer on the grass and which has caused so

Mandy Lee

Incubators and Brooders have the advantages—the result-giving properties that make them leaders everywhere. The only direct contact heat brooder. The only incubator that is not affected by outside climatic conditions. There is absolutely no guesswork with a "Mandy Lee." You can always make favorable hatching conditions at the eggs. Catalog tells how and why. Investigate before you buy.



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2 Hatches Free

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Most liberal offer made. Direct from factory to you at about half price for short time. Gem Incubators and Brooders are the best and most convenient to use. A proven success by thousands of poultry raisers. Catalog explains all. Its worth dollars to you. We send it free. THE GEM INCUBATOR CO., Box 503, Trotwood, Ohio



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get our free catalogue. It will give you some money-saving tips even if you do not buy of us. COLUMBIA INCUBATOR CO., Box 11, Delaware City, Del.

INCUBATOR Plans Free

Make It Yourself. Fixtures Cheap. Write Incubator Supply Co. Louisville, Ky.

Glenn Farms Verona, N. C.

We desire to announce to the public that we have purchased the entire BILTMORE STRAINS of S. C. and R. C. WHITE LEGHORNS and S. C. BROWN LEGHORNS, acquiring all their prize winners, interest and will for said breeds; in addition to the fine strains that we have been carrying, BARRED PLYMOUTH ROCKS, WHITE WYANDOTTES, LIGHT BRAHMAS, WHITE and PARTRIDGE COCHINS, WHITE BREASTED BLACK SPANISH, BRONZE TURKEYS and MUSCOVY DUCKS and MAMMOTH ROUEN DUCKS.

We will be glad to quote you prices on stock and eggs.

WHITE PLYMOUTH ROCKS. EXCLUSIVELY.

A few Cockerels and Pullets for sale. Eggs in season.

MRS. F. H. WILKINSON,
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"94 chicks from 100 eggs," John Burroughs, Pemberton, N. J., did it with a Finland. "If I needed 100 incubators," he says, "I would buy only the Finland." "That's just one only of scores of equally good hatches. Our guarantee securely protects you from disappointment or loss. Free Catalogue. Agents wanted. Finland Incubator Co. Box M, Jamesburg, N. J.

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YEARS

SUCCESS



Write today for The Autobiography of a Hen and the Victor Book—the whole story from the chick to the egg to how to make hens lay. All about Incubators for expert and beginner. Knowledge you ought to have if you are thinking of buying one. VICTOR machines are practical and well made, economical in operation and always produce the best results. Don't waste your time, eggs and oil in a poor machine. Let us tell you how to be a birdbrain. Our 40 years experience is at your service in these books. Let us send them to you and see. Write us for them today. Geo. Ertel Co. Established 1867. Quincy, Ill.

\$6 UP. These Incubators

The New Standard

Strong, well made. Simple, practical and successful. Fully Warranted. None better at any price. Catalog free. New Standard Incubator Co. Box 80, Ligonier, Indiana.





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SINGLE COMB BROWN LEGHORN COCKERELS, sired by First Prize Cock (weighing seven pounds), at Virginia State Fair, Richmond; also yearling Hens at \$1 each or \$10 dozen; also Barred Plymouth Rocks, Bradley Bros. strongest Pullet and Cockerel Huc. I won on my Leghorns at Virginia State Fair, the largest show ever held south of New York—viz., First Cock, first and second Cockerel, first Hen and second Pullet, no pen being shown by me. My first Cockerel was pronounced by Judge Lambert to be the best Leghorn in show of any variety. Can sell you stock the equal of any bred in America at bargain prices, considering quality.

STRAWBERRY HILL POULTRY YARDS, Box 287, Richmond, Va.

Breeding yards four miles from city on Chesapeake and Ohio.

Member American Leghorn Club; member Virginia Poultry Association.

BIRDS, Handsome BIRDS,

FOR SALE CHEAP.

S. C. W. Leghorn (Biltmore strain), Cocks, Cockerels, Yearling and 2-Year-Old Hens, \$1 each, \$10 per dozen. Some fancy stock hatched from eggs direct from Biltmore's prize winners at \$1.50 each.

Handsome Cockerels from the S. C. Buff Orpingtons, S. C. R. I. Reds and B. P. Rocks at \$1 each. Most excellent in quality. A few M. B. Turkeys at reasonable prices. Satisfaction guaranteed.

Mrs. F. E. WILLIAMS,

Wilmington Stock and Poultry Farm,
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PURE BRED

White Wyandottes.



Duston Strain,

Spring Hatched

Cockerels and Pullets.

Cockerels, \$1.50 and \$2.00

Pullets, \$1.00 and \$1.50.

ELLERSON POULTRY YARD,

J. W. Quarles, Prop

ELLERSON, Va.

White Wyandottes

R. C. B. LEIGHORNS.

Pullets and Cockerels of both breeds. Splendid healthy young stock. I have shipped everywhere and have never had a complaint. **WHITE WYANDOTTE EGGS** only at \$1 for 16 at present. Write me your wants. A. L. PARKER, Fall Creek Poultry Farm, Ashland, Va.

WHITE WYANDOTTES.

Get them, stick to them—the chicken of the day. Choice pens. Egg record furnished. One pullet 78 eggs December 6th to March 1st. Cockerel in cut for sale.

H. B. ARBUCKLE,
Maxwellton, W. Va.

many cases of sore mouth and sore heels in cattle and horses. A lotion of 2 drams of sugar of lead to 1 quart of water may be applied on a thin bandage covered with a dry one. In case this should prove insufficient or not suitable the sore may be smeared with vaseline, 1 ounce; sugar of lead, 1 drachm, and carbolic acid, 10 drops. Benzated oxide of zinc ointment may sometimes, in such cases, be used with advantage, or a dressing of 1 ounce vaseline, 2 drachms oxide of zinc and 20 drops iodized phenol may be applied.—Ed.

TREAT YOUR OWN HORSE AILMENTS.

Many animal owners make a serious mistake in not being prepared to do for themselves many things upon which they habitually seek aid from others. If a horse goes lame or a shoe bolt develops, their first thought is of the veterinary. This means valuable time lost and is a waste of money. The commonest ailments of horses are not difficult to understand. With the aid of that matchless little book, "A Treatise on the Horse and His Diseases," published by the Dr. B. J. Kendall Company, Enosburg Falls, VT., there are but few ailments that every horse owner cannot understand. Then, with the Kendall's Spavin Cure, which has been the foremost remedy for nearly two generations, he will be able to cure, absolutely, the great majority of injuries and ailments. It is the rarest thing that a spavin or a ringbone, curb or splint, if treated in time, does not yield to this remedy. If horse owners will keep it constantly on hand they will be able to treat for themselves and to treat promptly upon the first appearance of the growth. They will be far more certain to effect an absolute cure than the veterinary will if treatment be delayed. It is the old cases that are stubborn. Veterinaries cannot certainly cure them. But when taken in time we doubt if many cases can be produced where this old standard remedy will not effect its cure.

What is true of spavins, ringbone, curbs and splints, is doubly true of such casual ailments as cuts, wounds, ordinary lameness, etc. Kendall's Spavin Cure is a dependable remedy, and horse owners would do well to keep it always on the shelf.

VIRGINIA POULTRY SUPPLY CO.

We have pleasure in calling the attention of our readers to the advertisement of the above company. It will be its aim to do a mail order business in poultry supplies, incubators, poultry, etc. The young men composing the company are experienced breeders and are entirely reliable. You are requested to send for a catalogue.

White Wyandottes

DUSTON STRAIN

Three Blue Ribbons Virginia State Fair, Richmond, Va.—First Cockerel, first pen Pullets, first pen Hens.

Cockerels, \$5, \$3 and \$2 each; April 5th Pullets (like prize winners), \$3; late hatched Pullets, \$1 each.

Can furnish in December incubator eggs—about 600 from prize-winning stock at \$7.50 per 100; possibly more.

Correspondence a pleasure.

R. RANDOLPH TAYLOR, Negrofoot, Virginia.



Valley Farm

BARRED ROCKS

S. C. B. LEIGHORNS

500 CHICKS, some show birds

Some for utility.

CHAS. C. WINE, Mt. Sidney, Va.

GLENVIEW ORPINGTONS.

S. C. BUFFS Exclusively.

Some 3 year old hens at special bargain prices. Must be sold before cold weather. A postal will bring you the facts. B. S. HORNE, Keswick, Va.

I HAVE FOR SALE

300 S. C. BUFF ORPINGTON

cockerels and pullets—also one pen of one year old hens and one year old cock; 150 S. C. R. I. RED COCKERELS, 150 R. C. WHITE WYANDOTTE Cockerels. Prices reasonable. **FOREST PARK FARM**, Charles W. Smith, Prop., Williamsburg, Va.

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White Leghorn

Cockerels for sale. Hatched from eggs from first prize pen at St. Louis World's Fair.

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Fine Stock For Sale.

Pure Mammoth Bronze Turkeys, \$7 pair. Single Toms, \$5.
Barred Plymouth Rocks, \$4 trio.
Single Cockerel, \$2.
Eggs in season.

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A FEW GRAND

BUFF COCHIN

Cockerels for sale cheap to dispose of surplus stock. Won first and second Cockerel and first and second Pullet at Virginia State Fair, October, 1906. Price, \$3 each.

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YOUNG STOCK.

A Choice Lot for Sale at Prices to move them Quick. Buff Orpingtons, Barred Rocks, also a few Cockerels, in White Orpingtons. White Rocks and Buff Wyandottes. **QUEENLAND FARM**, Hagan, Va., R. No. 2 Box 7P.

Eggs for Hatching

From Best American and Imported Strains. \$2.00 per Sitting; \$10.00 per 100 of following breeds:

S. C. Buff Orpington
White Plymouth Rock
and S. C. Black Minorca.

S. C. WHITE LEGHORN \$1.50
PER SITTING \$8.00 PER 100.

Choice February and March hatched Cockerels for sale, \$1.50 to \$2.00 each.

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CHOICE YOUNG BIRDS now ready for shipment, also some of my last year breeding birds will be sold at Bargain Prices

Order early and get the best birds. Choice Cockerels for sale \$1.25 to \$1.50, females \$1.00 each

R. F. D. No. 4 LEXINGTON, VA.

Rhode Island Red

CHOICE S. AND R. C. Cockerels, Barred P. Rock stock, S. C. Brown Leghorns; 60 Pullets, 25-Year Hens, 4 Cockerels, 2 Cocks. Prefer to sell as a whole, but will sell any number at a bargain.

RIVERSIDE POULTRY FARMS,
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DAYTON, VA.

HANDSOME LOT OF

S. C. B. LEGHORN

Pullets and Yearling Hens; also a nice lot of High-Bred Berkshire Shoats. Everything sold under a guarantee. RIVER VIEW FARM, C. M. Bass, Proprietor, Rice Depot, Va.

PAGE VALLEY

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Are now making a special offering of Brown and Buff Leghorns, Black Minorcas, R. I. Reds and Buff Orpingtons. An opportunity to get good breeds at low prices.

C. L. SHENK, Box P, Luray, Va.

SPRING BROOK POULTRY FARM,
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S. C. B. LEGHORNS and Black Minorcas

exclusively. Only a few more Cockerels left at 75c. and \$1. Eggs in season. Satisfaction Guaranteed.

THE CENTURY IN 1907.

BRILLIANT FICTION AND COLOR WORK PROMISES THE BEST YEAR YET OF THIS LEADER AMONG MAGAZINES.

The Century promises for 1907 a remarkable list of fiction, more, and more exquisite color work than ever, and special articles that will cover a wide range of vital and timely topics.

A. E. W. Mason's brilliant novel, "Running Water," will continue through several months; and arrangements are made to give new subscribers from November the numbers containing the earlier chapters. In an early issue will begin a new serial, "Come and Find Me," by Elizabeth Robins, a big, bold, fascinating story of the magnetic attraction of the far North. Mrs. Frances Hodgson Burnett's new novel, "The Shuttle," begins in the November Century. It is the expectation of those who have read the manuscript that popular opinion will rank this "novel of social internationalism" as the greatest work Mrs. Burnett has yet accomplished. The year will be notably rich, too, in shorter fiction, contributions being already in hand from some of the best-known and most popular story-tellers of the day. There will be at least seventy-five short stories during the year.

Unusual phases of the American Civil War are to be treated in a style to appeal to the general reader as well as to those who were active participants in the struggle. The story of "How the Civil War was Financed" tells of Jay Cooke's efforts to aid the government and how he helped to float the great loans. General O. I. Howard, the only surviving commander of a separate army during the Civil War, has added his personal recollections of some of the leading men of those great days; and there is to be an account of "Lincoln in the Telegraph Office," recollections of the telegrapher who was attached to the War Department office in Washington and who there saw Lincoln several times a day.

An early issue will contain an important literary and historical study by Theodore Roosevelt, which will have a number of illustrations in color by Leyendecker. There is to be a timely discussion of the Panama Canal by Secretary Taft. Of unique interest will be E. W. Scripture's article on "The German Emperor's Voice," which will include a brief, unpublished essay by Emperor William himself. Fresh recollections of Whistler have been written by Cyrus Cuneo and Otto Bacher who enjoyed delightful personal association with the great artist. Notable for both its historic and art value will be the series of papers on "French Cathedrals," the text by Elizabeth Robins Pennell, the etchings by Joseph Pennell. Popular, yet authoritative treatment of science, gardening, farming and architecture will be made a prominent feature of The Century during the coming year.

CHOICE

White Plymouth Rock

AND WHITE LEGHORN PULLETS AND COCKERELS FOR SALE.
MINIBORYA FARM,
Box 901, Richmond, Va.

CHICKENS.

COOK'S WHITE ORPINGTON, DUSTON'S WHITE WYANDOTTE, HAWKINS' BARRED ROCK. Nothing but the best at reasonable prices.
FINE MAMMOTH BRONZE turkeys.
Miss CLARA L. SMITH, Prop., Landon Poultry Yards, Croxton, Va.

ROSE COMB WHITE LEGHORNS.
Cocks or Cockerels, \$1.25, \$2.50, to \$5.00 each; write your wants, Fred Nussey, Massaponax, Va.

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LARGE MATED HOMERS, Acclimated to the Southern climate—the Birds that make the money. For sale by THE CHEVY CHASE SQUAB CO., Kilmarnock, Va. Write for special prices.

Barred Plymouth Rocks

The product of ten years' careful breeding. One of my Cockerels will improve your flock.
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PULLETS AND COCKERELS FOR SALE.
THE BEST ON EARTH.
C. L. LONG, MIDDLETOWN, VA.

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Some choice Cockerels and Pullets, also a few good yearling Hens now ready to ship. Get your best season's breeders now at reasonable prices.

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CHICKENS, \$1 EACH.
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45 varieties Standard Bred Chickens, Pigeons, Ducks and Turkeys. Prices 5c. to \$1.00. All fresh and healthy. Write for catalogue.
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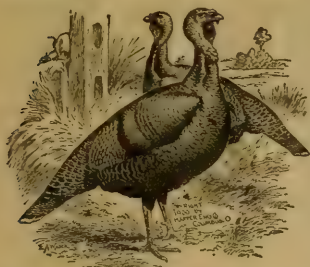
Dog Pups for sale, extra good type and breeding. The best of watch dogs and vermin destroyers. Sire and dams personally selected in England at a long price. Gold South for winter and must sell at once. Apply GEORGE F. WESTON, Rock Hall, Arden, N. C.

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The farmer's indispensable friend and workman. Good stock is the finest that money, intelligence and experience can produce. We can supply puppies of the highest class at all times, both sexes, from \$10 to \$25 each. Every puppy sold by us is guaranteed to be in perfect health and condition. Full and correct pedigree supplied with each. Send for our folder.

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Mammoth Bronze Toms.

BRIGHT BARRED TOMS,
"BROWN BEAUTY" LEGHORNS.

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Farm, Charlottesville, Va.

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Wolf strain of M. B. Turkeys for sale.
Express prepaid within the State. A
few S. C. B. Orpingtons and R. C.
White Wyandottes left.

HUGENOT POULTRY YARDS,
Dublin, Va.

A FINE LOT

White Hol'and Turkeys

for sale at reasonable prices. First orders
get best birds.

Apply to S. M. REED, Hertford, Per-
quimans County, N. C.

Mammoth Bronze Turkeys.

We have the largest and finest flock of
large Toms and Hens this year we have
ever had, at maturity—they are simply im-
mense. Toms \$5 and Hens \$3. Call or write
me and I'll treat you right.

J. B. BEAMER,
Pickaway, West Virginia.

MAMMOTH

Bronze Turkeys

FOR SALE. FINE STOCK; \$7.50 PER
PAIR.

Mrs. LIZZIE WHITE, Chilesburg, Va.

Ha'f Wild Turkeys.

Bred from pure Virginia Wild Turkeys
crossed with Mammoth Bronze; also Pure
Mammoth Bronze, bred from select stock;
large bone, correct plumage. A few S. L.
Wyandotte Cockerels. Prices right.

MRS. O. J. COCKES, Elberon, Va.

PURE-BRED

WHITE HOLLAND TURKEYS.

TOMS, \$3; HENS, \$2. ALSO MUSCOVY
DUCKS, \$2.50 A PAIR.

Mrs. S. Y. GILLIAM, Church Road, Va.

ENQUIRER'S COLUMN.

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THE GALLOWAY WAGON-BOX MANURE SPREADER.

The William Galloway Company is
advertising its wagon-box manure
spreader in another column. The
liberal proposition this company makes
should interest at least 1,000 of our
readers without them giving it a
second thought. You can get a manure
spreader for \$59.50, freight paid, or
you can try it 30 days at the expense
of the company and ship it back if
you don't want it, without investing a
copper. The spreader is guaranteed
by a \$25,000 bond. Just look up the
advertisement.

SPLENDID ANGUS BULL.

Referring to the Angus bull offered
this month by the Overbrook Farm,
Mr. Buddecke the owner, writes us as
follows:

"I purchased the Maryland Experiment
Station's herd of Angus cattle
last year. The bull I got had been
used for experiments, the results of
which speak for themselves. I quote
from the Experiment Station's re-
ports:

"Angus bull, College Dude 39985,
was purchased when he was 10 months
old and weighed at that time 760
pounds. We have had over 30 calves
by him from common cows; all of
them have shown the Angus type.
None of his calves ever developed
horns. Black predominated in all the
calves except one, which was mouse-
colored. Some of the calves were solid
black and could not be distinguished
from full bloods. We raised four
steers and one heifer from the half-
bloods that averaged about 1,100
pounds at 2 years old and butchered
out 63 per cent.

(Signed) "H. J. PATTERSON,
"Director."

"Such is the official record at the
Maryland Agricultural Experiment
Station (not my say so) of the sire of
the bull calf I have for sale. I have
some heifers by him that I would not
part with under \$250 each."

Orange Co., Va., Sept. 4, 1906.

I enjoy reading THE SOUTHERN
PLANTER and think it is a great help to
every farmer who reads it.

W. H. COX.

REDS.

THE THOROUGHBREDS.

The three Reds for sale.

Red Polled Cattle.
Red Duroc Jersey Hogs.
Rhode Island Red Chickens.

The Red Polled Herd is headed by the
Royal Blooded Herodotus—weighs over 2,300
pounds and traces his lineage to sturdy Scot-
land.

The sire of Prince Harriman took first
prize of Durocs at St. Louis in 1904.
Rhode Island Red Chickens—remarkable for
their rich, red coloring, the cocks being
unusually in plumage. The eggs of this
breed are large in size, fine color and good
favor. The chicks are all hardy, pullets
mature at an early age.

Now ready for market.

Red Polled Bulls.
Red Duroc Jersey Hogs, pairs or
three.
Rhode Island Red Chickens, Trio,
Eggs.

Write me for prices.—JOHN H. HAT-
FIELD, Hartman, Tenn.

WHITE

Holland Turkey Hens, \$2; Toms, \$3; S. C.
Brown Leghorns and Buff Rock Cockerels, \$1 to
\$3. Monzollan Pheasants \$6 per pair. GET
WHAT YOU PAY FOR OR MONEY BACK.

LAUREL HILL POULTRY FARM,
R. F. D. No. 1, Roxbury, Va.

ELBERON POULTRY YARDS.

MAMMOTH BRONZE TURKEYS, choice
birds from pens headed by 4½ and 46-
pound Toms.

SILVER LACED WYANDOTTE Cockerels.
SILVER PENICILED WYANDOTTE Cock-
rels (Wyckoff strain). Eggs in season.

OTHO M. COCKES, Elberon, Va.

MAMMOTH

Bronze Turkeys

FOR SALE. TOMS, \$5; HENS, \$3.
MRS. BELLE BUMPASS,
R. F. D. 1, Ashland, Va.

A FEW CHOICE

MAMMOTH BRONZE TURKEYS

FOR SALE. APPLY TO
R. E. CREE, Crozet, Va.



I HAVE THE FINEST JACKS
IN THE WORLD

and the greatest varie-
ty to select from. I
will also sell you as
good imported horses
as ever crossed the oc-
ean at prices from \$700
to \$1000. Write for cat-
alogue.

W. L. DELOW.

Cedar Rapids Jack Farm, Cedar Rapids, Iowa.

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PLANTER when writing advertisers.



TURKEYS AND CHICKENS.

ORDER NOW AND GET PICK OF BIRDS AND LOWEST PRICES.

Choice White Holland Turkeys—Toms, \$5 and \$6, according to quality and size. Smooth Bronze and also Half-Wild-Half-Bronze Turkeys for sale at prices ranging as follows: Young Toms, weight 16 to 22 pounds, \$5 to \$7 each; extra large Yearling Toms, 25 to 35 pounds, \$7 to \$10 each; Yearling Hens, \$5 and \$6 each, and Young Hens, 10 to 14 pounds, \$4 and \$5 each of all three breeds. Later hatched birds not so large at lower prices for prompt orders. I have some Exhibition Turkeys of all three breeds named above. Prices named on application.

Now is the time to order your Breeding Chickens for next season. I have choice birds of the following breeds for early buyers: R. C. and S. C. Brown Leghorns, S. C. White Leghorns, R. C. and S. C. Rhode Island Reds, White and Silver Laced Wyandottes, White Buff and Barred Plymouth Rocks, S. C. Buff, White and Black Orpingtons, Silver Hamburgs, Andalusians, Anconas, Black Minorcas and Partridge Cochins. I have EXHIBITION BIRDS of the following breeds: R. C. WHITE and BUFF ORPINGTONS, BROWN and WHITE, S. C. LEGHORNS, SILVER WYANDOTTES and BLACK MINORCAS. Prices of these birds a matter of correspondence.

EGG ORDERS BOOKED NOW AND SHIPPED WHEN WANTED.

PEKIN DUCKS OF THE BEST BREEDING AT \$7.50 TRIO.



I have choice Four-Year-Old Shropshire Registered 200-Pound Ram, \$27.50; fancy Ram Lambs, all eligible to registry, and from imported stock, \$20; both Shropshire and Southdown. I have a grand lot of Registered Ewes of Shropshire, Southdowns and Oxford, bred to imported and domestic Rams of the best breeding, for \$25 to \$30 each.

In Berkshire, Poland-China and Chester Whites I have as fine a lot of Pigs, Shoats, Young Sows, open and bred, and service Bears as any one would want. Prices will be named on application, and considering the quality they are indeed low. All Sheep and Hogs eligible to registry. Remember Turkeys are very scarce and prices, while high now, will be much higher later on. Order a trio or Tom to-day and I know you will be pleased. Address JAMES M. HOBBS, No. 1521 Mount Royal Avenue, Baltimore, Md.



HINTS BY MAY MANTON.

The double-breasted coat that extends just below the hips is one of the best liked of the fashionable world just now and is exceedingly jaunty and chic. This one is made of smoke-gray broadcloth with collar and cuffs of velvet that are edged with white cloth banded with gray, but it will be found appropriate for all suitings of the season, and also for the separate wrap that is necessary, no matter how many entire costumes one may possess. For the dressier garment broadcloth is perhaps the handsomest of all materials, but for runabout suit manish materials, chevils, homespuns and tweeds all are greatly in vogue. Collar, cuffs and pocket laps of velvet are well liked this season, but are not obligatory and the material can be used if a simpler effect is desired and plain cloth or mixed is always good style.



5486 Double Breasted Coat,
32 to 40 bust.

The coat is made with fronts, back, side-backs and under-arm gores, its many seams providing easy and satisfactory fit. The neck is finished with the regulation collar and the deep revers that mark the season, while the sleeves are in coat style, finished with becoming roll-over cuffs.

The quantity of material required for the medium size is 4 1/2 yards, 27, 2 1/2 yards 44 or 2 1/4 yards 52 inches wide with 3/4 yard of velvet and 1/4 yard of white cloth for the banding.

The pattern, 5486, is cut in sizes for a 32, 34, 36, 38 and 40 inch bust.

Unquestionably the Norfolk jacket will be much seen during the coming season. It makes a most acceptable and thoroughly satisfactory coat for

We use scrupulous care in choosing glasses to aid our eyesight. Why not use scrupulous care in selecting lamp-chimneys?

MACBETH is the only maker of lamp-chimneys who is proud to put his name on them.

Let me send you my Index to chimneys—it's free.

Address, MACBETH, Pittsburgh.

Cottage Valley

Offerings

Several 15-16 Grade Angus Bull Calves ready for service—will make fine bulls for grading up a herd.

Several Registered Angus Bull and Heifer Calves.

Several Fine Family Milk Cows—young, gentle and fresh to the pail.

S. L. Wyandotte Eggs, \$1 for 15; Wyandotte Cockerels, \$1 each; thoroughbred Buff Orpington Cockerels, ready for service, very fine individuals, \$1.50 each.

W. M. WATKINS & SON, Saxe, Va.

REDUCTION SALE.

Blooded Stock Cheap.

300 DUROCS, 150 SHROPSHIRE, 100 SHORTHORNS and POLLED DURHAMS. White Scotch Collies (All Pedigreed), 250 Plymouth Rocks (White, Buff and Barred). See our Dr. Quick, Stock Judge at Lynchburg, Va. Fair, 1st week in October. S. R. QUICK & SONS, Gosport, Ind.

RED POLL CATTLE.

Edgewood Stock Farm still offers choice RED POLL BULL CALVES. Breeding, Rufus, Majolani and Breadfinder. Fine reports from our shipments to Old North State farmers. They say Red Poll is the thing for them—hardy, beautiful, no horns, good milkers—the farmer's cow.

J. D. ARBUCKLE, Maxwellton, W. Va.

A-1 REGISTERED

RED POLL BULL

Calif, 4 months old, from imported sire and dam. As good as the best. None better.

W. S. SOUTHALL, Elkton, Va.

IMPORTED CATALONIA,

Majorca and Kentucky Mammoth Jacks; Saddle, Trotting and Pacing Stallions; Poland-China and Tamworth Hogs. We have the finest lot of Jacks and Stallions ever offered by any firm. Write for catalogue. J. P. COOK & CO., Lexington, Ky. Branch Barn, Newton, Kan.

Willow Glen Short Horns

Herd headed by Prince Albert, 206212, second prize Junior Bull Calf at the Chicago International, 1903.

My show herd, with thirteen entries at the Virginia State Fair, won twelve first (including three championship) and five second prizes. Amount of premiums eight hundred and fourteen dollars (\$814.00).

For sale, some fine Young Cows and Heifers, and also a nice lot of Young Bulls ready for service.

Write me what you want or come and see my herd.

DR. D. M. KIPPS, Front Royal, Va.

SHORT HORNS

RED CLOUD, first prize, 2-year-old, in class of six at State Fair, 1905.

NOMINEE, grand champion over all breeds in United States and Canada.

BEST GOODS, the image of his sire, CHOICE GOODS, sweepstakes at World's Fair, and out of a Marr Bessie, and IMP. LANCASTER FAME.

What herd, North or South, can lead out four bulls their equal?

THE BEST BLOOD IN BROOD COWS.

BURKE'S GARDEN CATTLE CO.,
Burke's Garden, Va.

SHORTHORN BULLS



Some fine, pure-bred and well-bred ones, eight months to two years old, for sale at low-down prices.

Correspondence solicited.
MAJOR GEO. CHRISMAN,
R. F. D. 4,
Harrisonburg, Va.

Springwood Short Horns.

We have some good Cows with bull calves at foot; a nice Roan Bull weighing 1,800 pounds.

We also offer "Herman," the GERMAN COACH BAY STALLION, weighing 1,500 pounds. A look at some of his colts will convince any one of his breeding.

A nice lot of fall Figs and couple Bred Sows—Poland China. Come or write.

J. F. Camper and Louisa E. Thrasher, administrators William T. Thrasher, deceased, Springwood, Va.

ELLERSLIE FARM—

Thoroughbred Horses

AND SHORTHORN CATTLE, Pure Southdown Sheep and Berkshire Pigs.

FOR SALE, R. J. HANCOCK & SON,
CHARLOTTESVILLE, VA

Short Horn Bull.

Spencer, 267234, 18 months old, for sale. Sire, Lord Ingwood; dam Clover Blossom, and tracing to Imp. Daisy. He is of the best milking strain of this breed. For price, etc., apply to

ANTRIM STUD, Warrenton, Va.

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the all-round useful suit, for travel and for all similar uses, and, in addition it is becoming to almost all figures. This one is made after the latest and most approved model and is fitted by means of seams that extend to the shoulders over which the plaits are applied. In the illustration dark-blue chevrot is stitched with belding silk and held by dark pearl buttons, but all the simpler suitings are appropriate and what are known as the mannish sorts, or trouserings, will be greatly in vogue.



5474 Norfolk Jacket, 32 to 40 Bust.

The coat is made with fronts, side-fronts, back and side-backs. The many seams allow a perfect fit yet are concealed by the box plaits and the belt that is slipped under them at the waist serves to hold the coat in place. The neck is finished with a regulation collar and the pointed lapels of the season, while the sleeves are in coat style with roll-over cuffs.

The quantity of material required for the medium size is 5½ yards 27, 3¾ yards 44 or 2¾ yards 52 inches. The pattern, 5474, is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure.

We can supply these patterns at 10 cents each.

SOUTHERN PLANTER,
Richmond, Va.

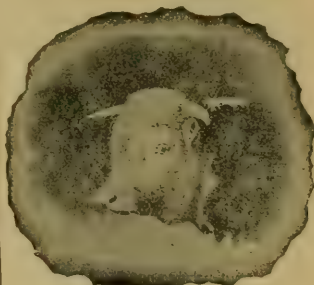
Dunkirk, N. Y., Sept. 19, 1906.

I think THE SOUTHERN PLANTER is the best publication of its kind that I have ever seen. If every farmer—at least in the South—would read and practice what it teaches in general, there would be fewer skinny fields in the South. R. W. TRAVIS.

CASTALIA HEREFORDS.

In my recent advertisements I have had a great deal to say about Herefords as a beef breed. This month I want to say a word about the Castalia Herd in particular. When I first established this herd I fixed an ideal up to which to breed. I have pursued this ideal as steadfastly as money and judgment would permit. Experts on the fine points of the breed tell me that I have succeeded in fixing a type of cattle that cannot be excelled for the purpose for which they were intended—viz., the average pastures in the South Atlantic States.

If you will come to "Castalia" and inspect my stock and see what sort of living they are used to, you will be surprised. You would not think it possible that such good stock could be raised under such average conditions. You will



not find any "kid glove" stock here. Every animal is able, and does, take care of himself. He has not been pampered and stall fed for show purposes. He is brought down to "hard-pan" at the start and kept there until the finish.

Briefly, this is the class of stock I am offering. I am exceedingly anxious for a good number of farmers and stock men to see it. If they can't do better here than in the West I am willing to quit the business.

STOCK, ALL AGES, AND BOTH SEXES, FOR SALE. SPECIAL OFFERING, REGISTERED BULLS, \$75 AND UPWARDS.

Inspection by Appointment.

Murray Boocock,

"Castalia," Keswick, Albemarle
County, Va.

SEVEN CENT CATTLE

When good cattle are fetching 7 cents and the common sort around 3 cents, it affords an object lesson to the farmer as to the profitable kind to grow. Grow the 7-cent kind by the use of

Aberdeen-Angus Bulls

such as we are offering ranging in age from 2 to 10 months. These calves are the low-down, wide-out "meat-to-the-hocks" kind, backed by the best breeding and will make bulls of the kind breeders are looking for.

Duroc-Jersey Hogs

Orders booked for Duroc Pigs (spring delivery) sired by the \$3,000 boar, "Beat Him If You Can." Some young Sows bred.

JOHN W. RICE & SON, Winchester, Va.

YEARLING REGISTERED

ANGUS BULL

FOR SALE.

Bred by Maryland Experiment Station. Write for record of this Bull's sire, who was bred to all kinds of cows at the Experiment Station.

OVERBROOK FARM, 8 W. Conway St., BALTIMORE, MD.

Angus Bull Calves.

STRICTLY TOP NOTCHERS.

Registered and richly bred. Many of them show ring animals. Ring in nose. Perfectly gentle. Will sell at bargain prices to reduce herd for winter. Also females not skin to bulls. Correspondence and inspection of herd invited. Address

ROSE DALE STOCK FARMS,
Jefferson, Va.

Walnut Hill Herd

Aberdeen Angus Cattle

Calves, 3 months old and up, for sale.

J. P. THOMPSON, Prop., Orange, Va.

Guernsey Bull

13 months old, for sale at a bargain; one Cow, 4 years old; one Cow, 5 years old. All registered. One Cow due to calve in February. Address

J. H. SCALES, Byrdville, Va.

GROVE FARM, Brooklandville, Md.

GUERNSEYS.

First Prize Herd at Timonium and Hagerstown, Md., 1905; first herd at Maryland State Fair; Allentown, Pa.; Trenton, N. J., and Richmond, Va., 1906.

BULLS ONLY FOR SALE.

OUR BERKSHIRES

were not beaten in 1905 and 1906, and we sold the first prize under year boar and under year sow at Richmond, 1906.

JAMES MCK. MERRYMAN,

P. O. R. F. D. Cockeysville, Md.
Telephone and Telegraph, 43-K, Towson, Md.

REGISTERED

Hereford Bull

Calves for sale; \$50 each. J. L. PITTS, Mountain View Stock Farm, Scottsville, Va.

AGRICULTURE IN THE SCHOOLS.

Agriculture, being the basis of the prosperity of this country, is now being added to the curriculum of the public schools in more than a dozen states of the Union. The United States is the first country to make this new departure, for the far-sighted men of the country are being made to understand that without agriculture this country will not be able to keep its place at the head of all nations. The science of husbandry is to the country schools what manual training or cooking is to those of the city, and every effort is being made by agricultural scientists to improve the methods of instruction and get as much practical benefit as possible. The experiment stations connected with the Department of Agriculture have been called into service to render as much assistance as possible to these schools and to disseminate information among the communities that need it.

A number of the experts of the Department of Agriculture have returned to Washington after making lectures in different states to teachers' institutes and colleges. It is considered probable that 15,000 or 20,000 teachers were reached last year through this means, and the work is spreading and growing in popularity.

Farming in a great many sections is still being run on the old rule of thumb, or according to practices adopted by fathers, grandfathers or great-grandfathers, rather than according to means found to be successful by men who make a study of agricultural problems. This, it was explained by one of the returned scientists, is the purpose of 'agricultural education. Not much practical instruction can be given, except in such states where are established model farms and dairies. The country children learn a great deal of farming in a practical way at home, but at school they are taught how to run a model dairy, farm, orchard, poultry yard, etc., and why certain farmers are successful and others are not. These plans, it is argued by the Department, will do more to keep the farm boy on the farm than any argument of sociologists.

In a few of the more progressive states, model agricultural schools have small farms and dairies attached, and the pupils are given a chance at practical farming, planting and cultivating grain, flowers and trees, the management of stock, and are shown the practical difference between dairy and meat stock, the methods of butchering and the approved cuts of meat, the different breeds of horses for draft and driving and are given the practical reasons underlying plowing, cultivating and all the annual round of farm labor. The idea is to give the man intelligent interest in farm work and open their eyes to the possibilities of improved methods and altogether rear a more intelligent

SEVERAL FINE

Jersey Heifer

calves for sale at farmer's prices, also a two-year-old pure St. Lambert Bull, from 16 pound dam, A beautiful animal.

Fifty R. I. Red Hens.

20 R. I. Red Cockerels at reasonable prices.
20 Bronze turkeys at low prices, according to breeding.

Millwood Farm, Farmville, Va.

A. R. Venable, Jr., Manager. All stock guaranteed as represented or money refunded.

Do You Like To Make Money?

If you are a farmer, one way to make money is to get a pure-bred Bull to produce the kind of calves that sell at good prices. Any of the beef breeds will do you lots of good, but you had better try a sure thing and get a GALLOWAY. They are as good as any and hardest of all; thrive where others fail; make beef, cream and finest of robes. Calves from a Galloway Bull from any sort of cows will be all black, hornless and of the true beef type. What more do you want?

I have Bulls of all ages for sale at \$35 to \$200 each.

N. S. HOPKINS, Gloucester, Va.

REGISTERED

Holstein-Friesian

Cattle; best butter producing strains; pure-bred JERSEY CATTLE, CHESTER WHITE, BERKSHIRE, JERSEY RED HOGS and all the LEADING BREEDS OF SHEEP, also DUCKS, POULTRY and TURKEYS.

Write for my prices.

W. R. SELLECK, Huntington Harbor, L. I.

THOROUGHBRED

Berkshire Boars, Jersey Bull Calves, Dorset Buck Lambs.

Sire of Calves, FLYING FOX 65466, son of Flying Fox who sold for \$7,500 at the Cooper sale 1902.

All stock in best of condition and guaranteed as represented.

F. T. ENGLISH, Centerville, Md.

DEVON HERD, HAMPSHIREDOWN FLOCK
ESTABLISHED 1884. ESTABLISHED 1880.

DEVON CATTLE

BULLS and HEIFERS,
Hampshire Down Sheep,
RAMS and EWES.

ROBT. J. FARRER, Orange, Va.

Always mention THE SOUTHERN PLANTER when writing advertisers.

For Sale To Quick Buyer.**REGISTERED BERKSHIRES.**

1 Boar, 2 years old; weight, 300 to 350 pounds, \$20.

2 Sows, 2 years old; weight, about 200 pounds, at \$25 and \$50.

1 Sow, 2 years old, and 5 Pigs (8 weeks old), \$45.

1 Gilt, 8 months; weight, about 175 pounds, \$20.

2 Gilts, 4 months old; weight, about 75 to 85 pounds, at \$10 and \$20; or lot at \$150.

2-Year-Old Sows, if fat, would weigh about 300 pounds each. All registered, or will be for purchaser.

H. R. GRAHAM, Chestertown, Md.

Sunnyside Farm BERKSHIRES.

Boars in service, a son of BARON PREMIER III., a son of MAYOR FAITHFUL out of Her Majesty (Biltmore's greatest Boar and Sow), and a son of the great MASTERPIECE. Sows of the very choicest breeding and superb individuality have been selected for mating with these boars. Some beautiful Pigs for sale at reasonable prices. Also

Aberdeen-Augus Heifers

97 per cent. pure-bred, suitable for breeding purposes. No order considered for less than a car load. Herd numbers 300 head.

W. R. WALKER, OWNER, UNION, S. C.

BERKSHIRES.

1 Selected Boar, 20 months old.
4 Selected Boars, 7 months old.
2 Selected Boars, 4 and 5 months old.
3 Selected Sows, 4 and 5 months old.
Eight-weeks-old Pigs for December and January delivery; also 7 September Pigs for immediate delivery. All breeding stock sold is selected.

LET ME HAVE YOUR ORDERS.

E. LODGE ROSS, Glen Hilton Farm, Bedford City, Va.

REGISTERED BERKSHIRES.

We have magnificent imported and American sows in our herd, and on these we are using LONGFELLOW, MASTERPIECE and LOYAL LEE OF FRANCESCO boars. It is our observation that this is the way to produce hogs that will mature early and grow large animals with the proper form. Write for catalogue. HIGHLAND FARMS, W. H. Doris, Prop., Mount Laurel, Va.

Berkshires

Several specially selected Boars from 3 to 12 months old; Pigs about 3 months old—all pure Biltmore blood and eligible to registry. Prices reasonable.

I ship none but the best. Satisfaction guaranteed or money refunded.

ROBERT HIBBERT, Strine's Farm, Charlottesville, Va., Box 19, Route 1.

BERKSHIRE HOGS.

6 pigs, farrowed May 23rd, 1906, 2 males, 4 females; 1 fine sow 6 mos. old by Lord Chesterfield out of Lady Chesterfield. All pure-bred. Also my Registered hogs, Lord and Lady Chesterfield, set 3 years old. Prices low. Write me. J. A. TURPIN, Hallsboro, Va.

BARGAINS IN BERKSHIRES.

Can furnish Biltmore Red Berkshires of both sexes, three months old, at \$5 each. Pedigrees accompany purchase.

B. E. WATSON,
Stuart's Draft, Va.

race of young farmers, who, when they stick to the soil will know how to make the most out of it, and take the fullest advantage of the life in which their lot is likely to be cast.

GUY E. MITCHELL.

THE HAWKEYE STUMP PULLER.

If you happen to be the owner of one of the unsightly stump farms that are still to be seen here and there throughout the country, you will be interested in the subject of this illustration. It is one of the stump and tree pullers manufactured by the Milne Manufacturing Company, of Monmouth, Ill. It is not such a hard matter to get rid of the stumps. It is a matter of being equipped for the business. With such machinery as this, and your own team, it is a comparatively easy matter to clean land of stumps, rocks, small trees, overgrown hedges, etc. You can anchor to a convenient stump or tree or stake down independently.

Write for their catalogue. It will give you detailed information and will be mailed free if you mention our paper

A NEW TOOL SHARPENER.

How many SOUTHERN PLANTER readers ever heard of "alundum"? All ought to know about it, for it is the name of a material which is destined to be of much value to farmers. It is designed to take the place of the old-fashioned grindstones for sharpening all sorts of knives and tools. It is the hardest, most durable and fastest cutting abrasive known, and has an advantage over the well-known emery in that it does not heat the tool or draw the temper. The Royal Manufacturing Company, 35 East Walnut Street, Lancaster, Pa., use alundum in the making of various kinds of grinding machines, in various sizes, from the small 3 1/2-inch wheel for kitchen use, up to a foot-power outfit for scythes, mower-sickles, axes, etc. These practical grinders are made without chains to buckle and break—the parts are interchangeable, and they will practically last forever. They do your sharpening in one-tenth the time of the grindstone and with much less work. It will pay you to write to the manufacturers and learn more about these little labor savers.

Poland China Pigs

Some fine ones, young sows bred, young boars and pigs. No better breeding in the United States. My herd boars have been sired by J. H. Sanders, Lookmeover. Perfect I. Know, Proud Perfection, Corrector and High Roller, the greatest prize winners of the breed—my sows have been as carefully selected.

*RED POLLED CATTLE. Fine good young bulls. Will sell a few cows and heifers. BROWNHEAD STOCK FARM, Charlottesville, Va., SAM'L B. WOODS, Prop.

POLAND CHINAS

at bargain prices for December. Males 2 to 8 months old, females 2 to 10 months old. From registered sires and dams. They are the big, fancy kind with the business hams. Can mate pairs or trios no akin. Pedigrees furnished with each pig.

Some S. L. WYANDOTTE

Cockerels at \$1 each; Hens at \$2 to \$3 each.

Yours for good stock at rock-bottom prices.

A. GRAHAM & SONS,
Overton, Albemarle County, Va.

Registered P. China 8 Berkshire
3. Whites. Large strain
All ages mated not akin.
4 week pigs. Bred sows.
Service boars. Guernsey
calves. Scotch Collie pups and poultry. Write
for prices and free circulars.
P. F. HAMILTON, Cochranville, Chester Co. Pa.

**POLAND CHINA AND O. I. C. SWINE.**

Choice Pigs of both breeds, two to three months, \$5 each; one six-months O. I. C. Male, ready for service, \$12; two four-months P. C. Males, \$7.50 each; two Registered P. C. Sows, bred to registered male. All stock eligible to registry and first class.

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Tamworth Pigs
From Registered Stock of Fine BREEDING.

VOLNEY OSBURN Blumont,
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TWO PURE-BRED**BERKSHIRE GILTS**

One bred, one open; price \$10 and \$15 each. Also two Pure-Bred Berkshire Boar Pigs, \$5 each.

J. L. GRAY, Norwood, Va.

BERKSHIRE BOARS.

I offer some exceedingly choice young boars for sale; by Imported Danesfield Tailor, 76490 and out of Biltmore bred sows. It will be hard to find better or cheaper stock

HENRY WARDEN, Fredericksburg, Va.

Chester Whites

Best Hog on earth. Pigs now ready for delivery at farmers' prices. Also some fine M. B. Turkey Toms.
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Rate 2 cents per word. Cash with order. Initials and figures count as one word. 25 cents minimum charge.

WANTED—SIX YOUNG LADIES. BETWEEN the ages of twenty and thirty, to be trained as nurses. Must be well educated, of good character, strong and healthy; also an experienced housekeeper who thoroughly understands her business and will attend to it. Address The Halcyon Sanatorium, Valdosta, Ga.

WHY DON'T YOU BUILD YOUR OWN incubators and brooders. Any one can do it with our free plans. Here's a chance to start a profitable business with little capital. Send a postal to-day and see the great possibilities we offer. H. M. Sheer Company, 184 Hamp Street, Quincy, Ill.

HAVING AMPLE PASTURAGE I DESIRE correspondence with some one with capital to go into sheep husbandry; 8 per cent. guaranteed. Address D. Vinia, Gockland county, Va.

WANTED—WORKING FARM MANAGER for farm near Richmond; one who understands soil improvement and handling of stock and isn't afraid of work. Address H. W. S., care Southern Planter.

TWO HIGH-BRED REGISTERED JERSEY Bulls for sale; out of grand cows sired by a son of Rotor of St. Lambert, Jr. A rare opportunity, price reasonable. Evergreen Farms, W. B. Gates, proprietor, Rice Depot, Va.

WANTED—EVERY TOBACCO PLANTER in the United States to have a copy of our new catalogue of tobacco seeds; the largest list in the world. It's free for the asking. Slate Seed Company, Hyco, Halifax county, Va.

WANT TO SELL MY FARM OF 400 ACRES; possession at once; time, ten years; interest, 6 per cent.; price, \$5,000; cash payment, \$500. All questions answered at once. T. H. Harris, Fredericksburg, Va.

FARM MANAGER—A HIGH-CLASS MAN of wide experience, solicits position in the South after January 1st; understand Southern conditions. At present I am manager of famous Northern breeding farm. My record and references assure satisfaction. Address Wallace Kirkpatrick, Savage, Minn.

EXTRA CHOICE BERSHIRE PIGS. No skin, for \$5 at ten weeks old. C. S. Townley, Red Hill, Va.

FIFTY PURE-BRED WHITE LEGHORN Cockerels for sale at 75 cents each. Mrs. L. B. Johnson, R. F. D. 4, Charlottesville, Va.

CHOICEST PURE-BRED SILVER LACED Wyandotte Cockerels, \$1.50 to \$3 each. No culls shipped at any price. Satisfaction guaranteed. Order soon; supply limited. S. P. Yoder, Denbigh, Va.

WANTED—PURCHASERS FOR WHITE Leghorn, White Wyandotte and Barred Plymouth Rock Cockerels. Birds of good quality at reasonable prices. F. C. Louhoff, Yancey Mills, Va.

HIGHLY TRAINED SHEPHERD GYP, age two; fine driver, road or field; black and tan. H. M. Word, Christiansburg, Va.

YOUNG MAN WITH ONE YEAR'S EXPERIENCE desires position for 1907 on farm where he can learn stock, fruit and dairy farms; \$15 per month. A., care Southern Planter.

GENUINE RHODE ISLAND RED COCKE-rels for sale; \$1.50 each. Mrs. J. F. Conally, Pamplin City, Va.

WANTED—TWO WHITE MEN TO DO THE entire work of an ordinary also farm. Mrs. George M. West, Box 360, Richmond, Va.

WANTED—TO EXCHANGE REGISTERED Aberdeen-Angus and Shorthorn Cattle for registered Hogs. J. D. Stogdhill, Shelbyville, Ky.

PURE-BRED CORNISH INDIAN GAME Cockerels, well matured, \$1 to \$2 each. Daniel Welsh, Lexington, Va.

WANTED—POSITION AS FARM MAN-ager for 1907; well posted upon raising and handling all crops, hay and stock especially; best references upon application. Address Manager, care Southern Planter.

AN OPPORTUNITY FOR A MAN OF limited means to own an up-to-date farm in "old Loudoun." Particulars on application. Box 40, Ashburn, Va.

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BUSINESS BARRED ROCK—WE HAVE A few choice cockerels bred from good layers which we will sell at farmer's prices. Send for circular. National Junior Republic, Box 7, Annapolis Junction, Md.

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PURE-BRED POLLED DURHAM and Shorthorn Bull Calves for sale; also White Holland Turkeys and White Wyandotte Chickens. J. L. Humbert, Charlottesville, Va.

S. C. BUFF LEGHORN COCKERELS FOR sale at \$1 to \$3; Buff Cochins Bantam Cockerels, 75c. to \$1 each. S. C. Shenk, Denbigh, Va.

FOR SALE—SHORTHORN BULL CALF, month old, large bone, deep red and good milking strala. Dr. Walter Stuart, Farmville, Va.

WANTED—MAN AND WIFE, WITHOUT children, on stock farm at Burkeville, Va.; woman to be good cook and cook for manager and care for house; man to work on farm. References. Address, stating wages, age, nationality, Thomas B. Scott, Burkeville, Va.

NEW CHATTANOOGA HANCOCK DISC Flour for sale. Albert O. Mays, Fredericksburg, Va.

WANTED—SEVERAL REGISTERED AND High-Grade Red Polled Cows and Calves; also 10 Angora Goats. Give description and price. Riverside Park Gardens, Morganton, N. C.

WANTED—TO RENT A WELL EQUIPPED farm in the Piedmont region, between Charlottesville, Va., and Washington, D. C. Can give all-round satisfaction by letters, references and an examination. R. B. Leatherman, 39 North Stewart Street, Winchester, Va.

ROSE-COMB RHODE ISLAND RED Cockerels for sale, \$1 to \$2 each; special discount on orders for eggs for hatching if booked in December. Miss Louise V. Spencer, Blackstone, Va.

CHOICE WHITE WYANDOTTE COCKE-rels at \$1 to \$1.50. Harvey Yoder, Denbigh, Va.

WANTED—EVERY TOBACCO PLANTER in the United States to have a copy of our new catalogue of tobacco seeds; the largest list in the world. It's free for the asking. Slate Seed Company, Hyco, Halifax county, Va.

FOR SALE—SIX LARGE, FINE BARRED Plymouth Cockerels, \$2 each. Mrs. F. E. Winkler, Cedon, Caroline county, Va.

REGISTERED LARGE IMPROVED YORK-shire Shoats, four months old, \$10 each; fine, growthy lot; order quick. W. E. Stickley, Strasburg, Va.

WANTED—A COMPETENT FARMER, ONE who understands grain and grass raising, the use of farm machinery and care of stock; a working farmer and single. State wages desired and give reference. Address Farm, P. O. Box 565, Norkelt, Va.

HOLSTEIN-FRIESIAN CATTLE FOR SALE Cows, yearlings, calves and Young Bulls of the most fashionable breeding. Choice English Berkshires, Barred Plymouth ROCKS. Fassitt Bros., Sylmar, Md.

WILL EXCHANGE DWELLING, WITH outbuildings and one acre of land, for a farm; rented at present as a store and doing good paying business in a growing town. P. H. Stone, Virginia Beach, Va.

COCKERELS FOR SALE—BARRED ROCKS, White Wyandottes, S. C. White and Browns Leghorns. Stroud & Walker, Floris, Va.

REGISTERED LARGE YORKSHIRES—A choice lot of Pigs ready to wean; boars ready for service; sows bred and ready to breed; prices low to reduce stock. J. D. Thomas, Round Hill, Va.

FARM FOR SALE, OR WILL EXCHANGE for any established business. Box 14, Route 1, Nelson, Va.

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Duroc Jerseys.

Sixty head of choice Pigs ready to ship; also some Boars ready for service, sired by Paul J. (son of Oom Paul), Monarch and Longfellow. S. A. WHITAKER, Hopewell, Va.

STERLING HERD

OF REGISTERED

Duroc-Jerseys and Berkshires.

R. W. WATSON, Petersburg, Va.

SPECIAL SALE

Duroc-Jerseys.

Forty to fifty good Pigs. I guarantee satisfaction to every customer. Write your wants to-day. CLARENCE SHENK, Luray, Va.



A FEW
Southdown Sheep
and ESSEX MALE PIGS

also 2 Pure-bred Angus Bulls, one 5 years old, recorded. The other a young bull and eligible to registry. Both fine. L. G. JONES, Tobaccoville, N. C.

WHY RAISE DARK SKIN



hogs when whites are "just as easy and look as much nicer. O. I. C. is the hog to raise. F. S. MICHIE, Rio, Va.

Always mention THE SOUTHERN PLANTER when writing advertisement.

LOSS FROM POORLY-MADE SEED BEDS.

One cannot read accounts of the intensive cultivation of the soil now being carried on in certain quarters without being impressed with the waste in present methods of farming in general. If we compare the harvest of the fields with the product of the gardens and small tracts, the lesson comes home with great force. Some little extra labor is bestowed upon the small tracts, but not so much after all. It is largely a question of methods and proper implements. With right methods and right tools, but little greater outlay in the form of labor, the small tract is made to yield two, three or half a dozen times as much as the field.

Much of the apparent loss from the fields is due directly and primarily to the failure to give the grain and grass a proper seed bed. The man who gave the best years of his life to the perfecting of a harrow that would remedy this and form a seed bed as near ideal as was possible, did not live in vain. Who shall estimate the good Duane H. Nash and his Acme harrow have done for agriculture? for this Acme harrow comes nearer solving the problem and enabling the farmer to plant his seed in a character of soil where it is sure to start, and start quickly and have an uninterrupted, strong growth than anything of harrow kind ever perfected. It was named by the inventor, "harrow, pulverizer, clod crusher and leveler." It is all of these. It differs materially in build from the old-fashioned spike-tooth harrow of our fathers, it differs more in its effects. But a single crop from a very few acres gives back its cost. Most farmers appreciate the need of a good seed bed. Not every farmer knows how to secure it. Nor is every farmer familiar with the good being done, the increased yields being secured by this new Acme harrow. Those who are not, and are sufficiently interested in increased returns from their lands, to do so will be well repaid if they will look up the Nash advertisement in this issue and write to him for his little book entitled "A Perfect Seed Bed." A copy will be sent on request if you mention this paper.

PROFIT FOR YOU.

The little book, "Farm Science," but recently off the press, is justly regarded as the equal in practical suggestions, plain teachings and unquestioned authority, of anything ever published exclusively for the farmer. Its character will be seen when we say that it was specially prepared for the International Harvester Company of America, Chicago, at an expense of several thousand dollars.

The book treats exhaustively such live, present-day farm subjects as Fertilizing, Preparation of Soil, Crop Growing, Alfalfa, Hay, Small Grains,

DORSET SHEEP

We purchased at the World's Fair, at St. Louis, a ram that was second at this show. We now have some of his lambs, and they are the best that we ever raised—as good as we ever saw. There are flock headers among them that would please the most exacting.

J. E. WING & BROS., Mechanicsburg, O.

EDGEWOOD STOCK FARM.

Dorsets all sold again. We just can't keep enough for our Virginia lamb raisers. More lambs on deck in November, so you must set your orders in on time this year.

J. D. ARBUCKLE & SONS, Maxwelton, W. Va.

FOR SALE AT LOW PRICES.

Reg. Hereford Bull, 7 months old, splendid individual of excellent breeding, large and well marked.

Grade Hereford Heifers and Cows in fine shape.

SEED WHEAT, Red Wonder and Bearded Fulcaster, in excellent order. For prices apply to WM. C. STUBBS, Valley Front, Farm, Sasasfras, Va.

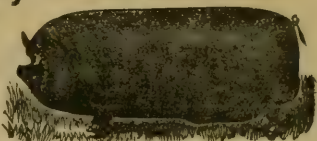
A Neat Binder for your back numbers can be had for 30 cents. Address our Business Department.

Always mention THE SOUTHERN PLANTER when writing advertisers.

The Royal Family of Berkshires.

Thirteen royally-bred service Boars must go at a sacrifice. My herd-headers: Imported Sir John Bull II, 7648; Uncle Sam, 79671, a veritable king of hogs; Columbia Lee III, 82309 (from the loins of Lord Premier, 50001), weighed 300 pounds at eight months old, phenomically short, dish-faced, of extremely sensational blood, made world famous at the World's Fair, 1904. I have twelve sows in farrow to him.

I bought all the prize-winning Pekin Ducks at Richmond State Fair and ordered more than appeared on the grounds. White Plymouth Rocks.



THOS. S. WHITE, Lexington, Va.

Glenburn Berkshires.

"Champions Beget Champions."

Our Hogs are of matchless size, style and quality and are from the bluest blooded animals of England and America.

We have Pigs by Imported Loyal Hunter and Hightide Commons, the greatest boars that ever crossed the Atlantic; also by Premier Longfellow and Masterpiece, winners of 1st and 2nd at World's Exposition, St. Louis; they are out of great sows sired by Lord Premier and out of such great winners as Charming 65th, Combination, Duchess 2nd, etc. FORFARSHIRE GOLDEN LAD JERSEYS. DR. J. D. KIRK, Roanoke, Va.

BARGAINS IN BILTMORE BERKSHIRES.

TO MAKE THINGS SNUG FOR THE WINTER WE WILL LET A FEW GO AT

15 PER CENT. DISCOUNT.

DON'T MISS THIS CHANCE TO SECURE THE BEST

American and English Blood.

A few High-Class Jersey Bulls left. Also Jersey Heifers for sale. All sold subject to tuberculin test. Mail orders a specialty.

Address: BILTMORE FARMS,
R. F. D. No. 2, Biltmore, N. C.

the Dairy and Farm Powers. Best of all, every one of these topics is handled by a specialist—men of large practical experience, in addition to being scientifically qualified to speak on matters in their line. The authors are Joseph E. Wing, expert agriculturist, Ohio; Prof. P. G. Holden, the corn culture expert, Iowa; W. F. Brown, farm specialist, Ohio; C. G. Hopkins and Prof. Fred R. Crane, of the Illinois College of Agriculture; Prof. Thomas Shaw, late of Minnesota Experiment Station; Prof. Clinton D. Smith, director Michigan Experiment Station; Hon. Willett Hays, Assistant Secretary of Agriculture, Washington, D. C. The 128 pages of the book are taken up by these eight specialists on their chosen subject, so it will be seen with what thoroughness each topic is treated.

The book is meeting the demand among farmers which it deserves. A large edition is being rapidly exhausted. It is only necessary to send in the postage for its mailing, three 2-cent stamps, to receive a copy. We advise our readers to send for it promptly before the issue is exhausted.

ANCHOR FENCE.

If you are going to buy fence and are in doubt about the kind, look into the Anchor fence, made at Cleveland, Ohio. It has an excellent name among people where it has been tried. It is made of good, substantial hard steel coiled wires.

The manufacturers claim that the wires they use give Anchor fence double the strength of fences made of ordinary soft wires. An important feature of Anchor farm fence is the patent lock of the horizontal to the upright stay wires at every crossing. This prevents all slipping and insures the fence keeping its upright character permanently. For particulars, write to the Anchor Fence and Manufacturing Company, Cleveland, Ohio, for their free fence book, which gives all details.



Address Box 204.
Office Phone 993.
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Pens and Office, Union
Stock Yards, Richmond, Va.

Montview Farms.

A RARE CHANCE IN

BERKSHIRE PIGS.

The Southern Railway in double tracking through Montview Farms has taken our hog-yards and part of our hog-house. Therefore we offer a few Berkshire Boars and Sow Pigs, magnificently bred, **FOR LESS THAN HALF OUR USUAL CHARGES**, pending the construction of a new hog house and runs. Sons and Daughters of **MANOR FAITHFUL**, imported out of splendid bred sows. Also several sons and daughters of **BARON PREMIER**, 3d, a World's Fair winner out of an Imported Sow.

ADDRESS

Montview Farms,

CARTER GLASS, Owner.
C. L. STAHL, Manager,

Box 513, Lynchburg, Va.

KENILWORTH HERD

OF ENGLISH AND AMERICAN BRED BERKSHIRES.



IMPORTED ROYAL CARLYLE.

Headed by the Imported Boar, Royal Carlyle, winner of the first over all classes at the Royal Show of England, and the highest-priced six-months pig ever sold. A number of boar and sow pigs by him out of both American and English bred sows now for sale, ranging in ages from four to eight months. Also some choice young sows by Dorset Lee of Biltmore, and bred to Royal Carlyle.

One boar by Imported King Hunter; dam, Berks Pansy of Biltmore.

One boar by Dorset Lee of Biltmore; dam, Berks Pansy of Biltmore.

Guarantee perfect satisfaction or refund the money.

For description and prices, write EDGAR B. MOORE, Proprietor, Biltmore, N. C.

MEADOWVIEW BERKSHIRES.

NOT "HOW MANY," BUT "HOW GOOD," OUR MOTTO.

Following our success at the fall fairs, and in order to more widely introduce our stock, we are making a special discount on all young stock for the next thirty days.

We grow the kind that win, and they in turn will produce winners. We carry the very best lines of English and American breeding, and every animal in the herd is a worthy representative of the breed.

SEND FOR LIST OF STOCK FOR SALE

To G. A. Shorttrede, Manager Meadowview Farms, Woodbine, Pa.

HOGS

If you have fat hogs to sell ship them to me. I GUARANTEE to get you top prices for them. Send for weekly quotations—accurately written. I have best facilities and best customers for all kinds of Hogs.

Ship me your fat cattle also—or anything in the Stock Line. I guarantee best results and Values.

Commissions reasonable.

ROBERT C. BRAUER, Commission Salesman of

Cattle, Hogs, Sheep, Lambs and Calves.

RICHMOND, VA.

WOODSIDE BERKSHIRES.

Everything Shipped on Approval.



TO HAVE IN THE KITCHEN.

Arrangements have been made by which every lady reader of this paper can secure a valuable cook book. "The Enterprising Housekeeper," simply by sending her name and address to the Enterprise Manufacturing Company of Pennsylvania, 231 Dauphin Street, Philadelphia, asking that it be sent to her. This book gives over 200 recipes for delicious and economical dishes that will be appreciated at any table.

Labor in the kitchen is made lighter by the use of the Enterprise meat and food choppers and other well-known Enterprise machines. No woman realizes how much unnecessary work she has been doing, and how easily she could avoid it, until she learns how little the various styles of the Enterprise meat and food choppers cost, and the surprising amount of work they will accomplish. By their use any kind of meat, raw or cooked, can be chopped in a moment's time. They cut easily, rapidly, and as fine as desired, and are almost as quickly cleaned as the old-fashioned chopping knife. Any kind of meat, fish or vegetables may be chopped with these machines, and the many delicious dishes possible to prepare with them are surprising.

"The Enterprising Housekeeper" has been prepared at a considerable expense, the recipes it gives only being perfected after hundreds of experiments. Every reader of this paper should have one, and it will be well to get requests in as soon as possible—before the present edition is exhausted.

THE BUMPER CORN CROP OF 1907.

"If I were asked to advise the farmers what to do with this year's bumper corn crop," said a wise old farmer the other day, "I'd say feed it, by all means. And to that advice I'd add, if you want to get the most profit out of it, grind it, corn, cob and all. It has been proven, time and again, that if properly ground the cob adds much to the nutritive value of the feed, besides considerably increasing its bulk, making the feed go farther."

We endorse every word of our farmer friend, and think it would pay

We are now offering a grand lot of fall Pigs sired by my two great Boars, LUSTRE'S CARLISLE OF BILTMORE, No. 72057, and MASTER LEE OF BILTMORE, No. 78379, and out of royally-bred sows weighing from 500 to 600 pounds each, in only fair breeding condition. Lustre's Carlisle now weighs over 700 pounds. He is sired by the great show boar, Royal Carlisle, No. 88313; dam, Topper's Lustre 54923. Master Lee is sired by Loyal Lee II., of Biltmore, No. 58332; dam, Imported Danesfield Mistress, No. 76327. Loyal Lee II. is undoubtedly one of the champion Berkshire boars of the world. Danesfield Mistress is a daughter of Danesfield Huntress, No. 68178, who has an unbroken record of first prize at all the leading English shows, with one exception, and then being defeated by her daughter, Danesfield Mistress. We can always furnish pigs not akin, and never send out anything that is not strictly choice. In order to show our confidence in what we offer and insure satisfaction to our customers, we will ship pigs for the next sixty days ON APPROVAL, and if they are not entirely satisfactory in every respect you can return them at OUR EXPENSE. In other words, you can see the pigs before you buy, and if they do not suit, it costs you absolutely nothing. Address

WOODSIDE STOCK FARM, R. S. Farish, Proprietor,
CHARLOTTESVILLE, VA.

WE OFFER FOR DECEMBER DELIVERY

- 1 RED POLLED BULL, 2 years old.
- 2 SHORTHORN BULLS, 1 year old in March.
- BERKSHIRE HOGS AND PIGS, not akin.
- SCOTCH COLLIE PUPPIES.
- TOULOUSE GEESE.
- BRONZE TURKEYS. HALF-WILD TURKEYS.
- PEKIN DUCKS.
- BARRED PLYMOUTH ROCK COCKERELS AND PULLETS.

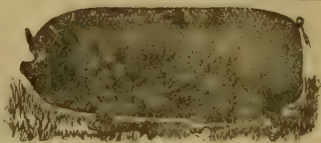
All of the above will be sold at low prices this month.

M. B. ROWE & CO., - Fredericksburg, Virginia.

Berkshire Pigs.

If you want something really choice in Berkshire Pigs, both as regards breeding and individuality, you should write or come to see me at once. My imported Boar, Glenburn Catch, is doing the work.

T. O. SANDY, Burkeville, Va.



ST. AUBIN FARM REGISTERED BERKSHIRES.

The best English and American blood abunds in my herd. Such grand strains as "Loyal Berks," "Royal Carlisle," "Lord Premier," No. 50001, "British Lord," No. 83564, and many others. If you want the best, quality and early maturers, I have what you want at reasonable prices. Choice Pigs of either sex for sale. Pigs mated not akin.

Satisfaction guaranteed. Correspondence solicited.

Address COL. HENRY HOLLYDAY, Easton, Md.

College of Agriculture and Experiment Station

OFFERS THE FOLLOWING SURPLUS STOCK:

JERSEYS—One Mature Bull and two Bull Calves.

SHORTHORNS—Bull Calves, Heifers and Mature Cows.

HEREFORDS—Bull Calf.

BERKSHIRES—Pigs of both sexes ready for shipment. Will also take orders for Pigs to be delivered in from thirty to sixty days.

The above is the increase of the herd of the College Farm, and will be disposed of at fair prices. For further particulars, write

JOHN R. FAIN, Agriculturist, Blacksburg, Va.

TAMWORTH AND POLAND CHINA

Pige, entitled to registration, for \$5 at eight weeks. Boars ready for service and Bred Sows.

J. C. GRAVES, Barboursville, Orange County, Va.

POLAND CHINAS

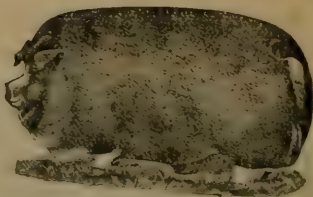
The Big Kind and the Prize Winning Kind.
PIGS, BOARS AND BRED SOWS FOR SALE.

Herd Boars now in service are D's Corrector 98157, bred by Winn & Mastin, of Kansas, and a half brother to the Senior Champion Boar at St. Louis World's Fair. Half interest in the sire of D's Corrector 98157, sold for \$2,500. My other herd Boar, Big Jumbo 94275, was bred by W. S. Powell, of Kansas, and is of the largest strain of Poland-Chinas in the world. He is a superb individual and promises to develop into an immense hog.

Also a few Shorthorn Bulls and Heifers.

Satisfaction guaranteed, as stock may be returned at my expense. Prices low.

J. F. DURRETTE, BIRDWOOD, ALBEMARLE COUNTY, VA.



every corn raiser to adopt his suggestion.

The "Corn Belt" feed mill is a mill specially designed to grind the cob and the corn together, and overcomes all the objections found in the ordinary feed grinder. By a system of knives the "Corn Belt" cuts or reduces the cob fine before it passes with the cob down to the grinder, which completes the operation. The grinding of this specially constructed knife arrangement is known as the gradual reduction process; by it the cob is ground to an even fineness with the corn and in the ground mass cannot be distinguished from the grain. You will readily appreciate what a splendid quality of feed this makes, how much less waste there is in feeding corn this way and how much more money you'll get out of your corn crop if you grind it instead of selling it as corn.

Every farmer who raises corn will find it profitable to take our old friend's advice. Write to-day to the Spartan Manufacturing Company, Galesburg, Ill., for their catalogue. It describes all sizes of "Corn Belt" mills and tells just how this special feature makes this the mill for the farmer to buy. Kindly mention this paper when you write and the catalogue will be mailed free.

GLENBURN FARM.

What a prominent Western breeder has to say of Glenburn Farm Berkshires, J. D. Kirk, proprietor, Roanoke, Va.:

We make the following extracts from a letter written by Mr. G. G. Council, Vandalia, Ill., one of the greatest Berkshire breeders of the West, in Farm Home, Springfield, Ill., November issue. Says Mr. Council: On my visit to Glenburn Farm I was not prepared to see such a large and extra herd of brood sows, although I knew that Dr. Kirk had been buying the tops of the leading American herds by such great boars as Lord Premier, Longfellow, Masterpiece, Baron Duke. Combination and others. He has a number of imported sows of great quality. I was much interested in all of Dr. Kirk's Berkshires and not a little surprised at their great quality. I found in a lot near the house a pair of pigs by Premier Longfellow and out of Premier Blossom IV. by Lord Premier. The herdsman told me that the Doctor had refused \$500 for one of these pigs—Predominant 94342.



Poland Chinas.

A Superior lot of Pigs by my fine Boars, GRAY'S IDEAL, 65806, GRAY'S BIG CHIEF, 57077 and VICTOR G. 57075. Can furnish pairs not akin to those previously purchased. Come to headquarters and get the best at one-half Western prices. Oldest herd in the State.

J. B. GRAY, Fredericksburg, Va.

DUROC-JERSEYS

ARE AT THE TOP AND THERE TO STAY. WRITE US AND WE WILL GIVE YOU SOME HOG FACTS THAT WILL CONVINCE YOU.

We have the blood of ORION, OHIO CHIEF (recently sold for \$2,000.00), SENSATION, SURE WINNER, TOPNOTCHER, PROTECTION, KANT-BE-BEAT, LONGFELLOW, WASHINGTON KING, GO FORWARD, FAYETTE CHIEF, and HIGH CHIEF, besides a string of others of the leading Western winning strains, THE VERY CREAM OF DUROC-JERSEY BREEDING. Our prices are low and the quality is high. We can save you money in the purchase price and in expressage. Write at once and we will give you some DUROC FACTS.

LESLIE D. KLINE, Vaucuse, Va.

JERSEY BULLS

AND CALVES FIT FOR SERVICE, FOR SALE

They are from Cows giving milk in paying quantities.

Forest Home Farm, PURCELLVILLE, VIRGINIA.

JNO. S. FUNK, GLEN FARM, ROUTE 7. Harrisonburg, Va.

Importer and Breeder of

POLLED DURHAM
CATTLE OR HORN-
LESS SHORTHORNS,
AND POLAND-CHINA
HOGS. All eligible to
registry.

In the West the
Poland-Chinas are called
the mortgage lifters.

I have a fine lot of Pigs
on hand ready for shipment.





This Beautiful Picture In 6 Brilliant Colors Mailed To You Free.

**Dan Patch 1:55, The Pacing King
Cresceus 2:02 1/4, The Trotting King**

We have Large, Colored Lithographs of our World Famous Champion Stallions, Dan Patch 1:55 and Cresceus 2:02 1/4, in an Exciting Speed Contest. It is 16 by 21 inches and shows both horses as life-like as if you saw them racing. You can have one of these Large and Beautiful Colored Pictures of the Two Most Valuable Harness Horse Stallions and Champions of the World, Absolutely Free. We Prepay Postage.

* * * This cut is a reduced engraving of the Large Colored Lithograph we will send you free.

WRITE FOR PICTURE AT ONCE

1st. Name the paper in which you saw this offer.
2nd. State how much livestock you own.

INTERNATIONAL STOCK FOOD CO.

MINNEAPOLIS, MINN., U. S. A.

You Make Extra Money by using "International Stock Food" * * * 3 Feed for One Cent, for your Horses, Cattle, Sheep, Hogs, Goats, Calves, Lambs or Pigs. Your money re-invested in extra feed. Sold by 125,000 dealers. Dan Patch and Cresceus eat it every day.

These pigs were farrowed April 5, 1906, and I can say without fear of contradiction that one of these (Predominant 94342) was the greatest boar pig I had seen this year. I was not surprised to learn that the Doctor had refused \$500 for him. This is one of the greatest prospects for a herd header and show boar that I have seen this year. Another great pair of boars that the Doctor is pushing were sired by Masterpiece, and they are the kind of beauties that would please Corsas, the Lovejoys or any of the many admirers of that splendid type."

Mr. Council further says: "This herd has the right kind of breeding, the size and quality so much in demand, and if Dr. Kirk does not have a large and growing trade it will be because breeders do not know where to go for bargains and quality. I want to serve notice on the Berkshire breeders who are in the breeding business for profit that we have strong and successful competitors in the South and that when our Southern rivals adopt the public sale and other methods of publicity used by Northern breeders, that we will have to attend pretty close to our knitting or our friends in the South, who have been among our best customers, will be our strongest competitors."

Dr. Kirk writes us that recently he has refused an offer of \$1,000, made through Mr. Council, for the young boar Predominant 94342, above alluded to. This, we believe, is the highest price ever offered for a pig of the age of this one—a little over 7 months when the offer was made.

Chatham county, N. C., Oct. 22, 1906.

I wish to say that I derive both profit and pleasure in reading THE SOUTHERN PLANTER, which should be in the hands of every farmer in the South.
J. G. HANNAH.

JERSEY CATTLE

The best island and home-bred strains. Herd headed by the \$10,000 Bull, Eminent, No. 69631, who stands without an equal in the Jersey world.

Indian Game Chickens.

The king of table fowls.

White Leghorns.

The greatest layers.

White Orpingtons.

The new English general purpose fowl.

For particulars, address BOWMONT FARMS, Salem, Va.

SUNNY HOME HERD —OF— Aberdeen - Angus Cattle.

We make our living breeding Angus cattle, consequently we must breed the sort that will sell at all times. Our experience, gained through a long term of years; convinces us that this sort is produced only by mating cattle of the very choicest bloodlines and highest individual merit. We maintain a good sized herd of females, every individual of which, has for sire, a great prize-winning bull. To mate with these great females, we use bulls that have demonstrated their ability to make good.

Our sales prove our theory of breeding to be correct. We do business every week in the year. For herd breeders, write A. L. FRENCH, Prop., R. F. D. 2, Byrdville, Va.



The Delaware Herd of

ROYAL ANGUS CATTLE

is not surpassed either in breeding or individual animals by any herd in the East. At the head of our herd is

PRINCE BARBARA, 68604.

the son of the great \$9,100 Prince Ito. Females of equally choice breeding. Write your wants. Remember, we take personal care of our cattle; keep no high priced help; incur no expense of exhibiting; all of which enables us to offer stock at equitable prices. Send for pamphlet. 15 Bulls from 2 to 15 months old for sale.

MYER & SON, Prop.

Bridgeville, Del.

Tell the advertiser when you saw his ad.

ON TO RICHMOND

The breed, character and individual excellence of the six shorthorns entered at Richmond Fair by the Burke's Garden Cattle Company was such that they captured five blues, four reds and a purple sweepstakes. Five prominent breeders, each with a larger herd, entered the list, two of whom, Robbins & Cotton, have been at the front on the Northern circuit. Red Cloud got first money as a 2 year old, which he had just done at Ohio State Fair, in a class of six. Best Goods, the \$1,000 son of Choice Goods (a \$10,000 world's champion), was the best yearling. Rubtress led six in cow and stood second to Robins, international sweepstakes cow of last year. Tebo Nell bore premier honors from a large class of 2 year olds. A Burke's Garden calf, Whitehall Countess (weight 325 pounds at 9 months), was generally conceded to be the best and an acceptable winner.

The very high development to which the stock breeding interests of Burke's Garden has attained is due in large measure to the enterprise and public spirit of Mr. R. M. Lawson. For twenty years or more he has been drawing on the leading herds of this continent for their best productions, and importing whenever it seemed possible to effect more rapid improvement with English-bred stuff.

Burke's Garden will soon be recognized as the fine stock nursery of the South.

W. B. DOAK.

OF VALUE TO HORSEMEN.

Do you turn your horses out for the winter? If so, we want to call your attention to a very important matter. Horses which have been used steadily at work, either on the farm or road, have quite likely had some strains whereby lameness or enlargements have been caused. Or perhaps new life is needed to be infused into their legs. Gombault's Caustic Balsam, applied as per directions, just as you are turning the horse out, will be of great benefit; and this is the time when it can be used very successfully. One great advantage in using this remedy is that after it is applied it needs no care or attention, but does its work well and at a time when the horse is having a rest. Of course, it can be used with equal success while horses are in the stable, but many people in turning their horses out would use Caustic Balsam if they were reminded of it, and this article is given as a reminder.

Cheap as Wood.



We manufacture Lawson and Farm Fence, sold direct at wholesale prices only, at manufacturers' prices. No agents. Our catalog is free. Write for it to-day. UP-10-DATM-FMG. CO., 10th St., Terre Haute, Ind.

Hygeia Farm Holsteins.

The Finest Herd of Registered Holsteins in the Southern States

COWS—THE JESSIE VEEMAN FAMILY

headed by that grand individual, JESSIE VEEMAN A., and including seven of her daughters justly come first.

JESSIE VEEMAN A. is admitted by the best judges to be one of the finest types of the Holstein cow, both in conformation and productive ability. Many honors of the show ring have fallen at the feet of this "Bovine Queen." In 1903 at the New York State Fair, she was adjudged CHAMPION COW. Official record 28.25 lb. butter in 7 days with an average milk production of over 83 lb.

JESSIE VEEMAN C., the oldest daughter, closely resembles her mother in outward conformation. She carried off the highest honors at the New York State Fair in 1906, against strong competition. She has just completed a record of 30.4 lb. butter in 7 days.

JESSIE VEEMAN HENGVERVELD. This is one of the greatest producers of this wonderful family. At 3 years old, she produced 18.8; at 4 years, 20.33; and at 6 years, she produced 24.4 lb. of butter in 7 days, the last record being made in very hot weather and under unfavorable circumstances.

The other five daughters are individuals of the highest merit, both in daily conformation and in individual excellence.

FRONTIER JESSIE VEEMAN, 19.4; JESSIE VEEMAN DIONE, 14.93; BERYL JESSIE VEEMAN A., (at 2 years), 9.68; JESSIE VEEMAN A. 2D (at 2 years), 14.49; JESSIE VEEMAN DE KOL (Untested).

JOE BACH JOSEPHINE

another famous member of the herd, is one of the five cows that won the "dual purpose test" at St. Louis in 1904. Her A. R. O. Record is 23.83 lbs. butter in 7 days.

HULDA ABBEKER DE KOL, granddaughter of DE KOL 2ND, has just completed a record of 19.87 lb.

SCOTIA 4TH, A. R. O. Record, 20.18 lbs. butter in 7 days.

NETHERLAND FANCY ROSETTA, A. R. O. Record, 20.53 lbs. butter in 7 days.

COUNTS DORINDA DE KOL, A. R. O. Record, 20.37 lbs. butter in 7 days.

PRINCESS KORNDYKE DE KOL. This is a very fine individual whose breeding shows a combination of the blood of DE KOL 2ND, BELLE KORNDYKE, JESSIE BEETS and NETHERLAND HENGVERVELD. The average official record of two of her nearest dams is 24.43 lbs. butter in 7 days.

AALTIJE DE KOL, 17.33; Shadeler Dulcibel 4th, 16.427; ANZALETIA PAULINE PAUL 2D (at 2 years), 10.143; MANOR GRACE PIETERTJE (at 1 year, 9 months), 9.16; FAISY PEOPLES, 19.48; LADY OF BURTON AAGGIE, 16.79; LADY OF HILLSIDE (Untested).

BULLS.—PONTIAC CALYPSO'S SON.

This is one of the finest of the "IMPERIAL PONTIACS," partaking at once of the individual excellence, both in conformation and production, of his two wonderful grand sires, HENGVERVELD DE KOL, and DE KOL 2ND'S PAUL DE KOL. His dam, PONTIAC CALYPSO, is one of the greatest producers of the daughters of HENGVERVELD DE KOL. As a 3-year-old, she produced, during the hottest weather of July, 23.5 lb. of butter in 7 days. She is one of the ten daughters of HENGVERVELD DE KOL who with first calf produced an average of 17.75 lb. butter in 7 days. Another half-sister has a record of 28.41.

His sire, BERYL WAYNE'S PAUL DE KOL, has over 40 A. R. O. sisters, one of which is AAGGIE CORNUCOPIA PAULINE, the WORLD'S CHAMPION COW (34.31). He is the sire also of SHADYBROOK GERREN PARTHENA 4TH, who holds the world's record for production under 2 years old, having produced at 1 year, 8 months, in 7 days, 17.86 lb. butter. The three nearest dams of this young bull have records averaging practically 26 lbs.

KING ORMSBY FRIEND

This bull is an individual of exceptionally good conformation, fine enough to show in any company, and good enough to be at the head of any herd. His dam, PAULINE DE KOL MUTUAL FRIEND, produced under 2 years old, in an official test, 16.32 lb. of butter in 7 days; and again, as a 3-year-old, has placed to her credit 19.56 lb. She was from DE KOL KONINGEN PAULINE, (23.301), and sired by the youngest son of DE KOL 2D, DE KOL 2D'S MUTUAL PAUL, the youngest bull of the breed having a 25 lb. daughter. KING ORMSBY FRIEND was sired by DUCHESS ORMSBY BUTTER KING. His dam, DUCHESS ORMSBY, made an official record of 24 lb. 4.4 oz., her milk showing 5.44 per cent. of fat.

For the purpose of introducing Holstein blood into the South and proving the profit of grading up our herds, this bull will serve a limited number of pure-bred cows of any breed and good grade cows for \$5 each. Arrangements can be made by mail.

I am prepared to furnish the best pure bred Holstein-Friesian cattle from a single calf to car load lots, every animal guaranteed as represented.

For further information come to Hygeia Farm and receive a cordial welcome, or write

SAMUEL ADAMS ROBINSON, M. D., Prop.

COVESVILLE, Albemarle County, Virginia.

MORVEN PARK.

The Property of WESTMORELAND DAVIS, Esq.

Reg. Dorset Horn Sheep.

Flock headed by Imported Ram, MORVEN'S BEST No. 4132 (C. D. C.), 1st. Prize at English Royal 1904.

We are offering for delivery now, last fall born rams which weighed, without forcing at less than six months of age, from 110 to 130 lbs., and averaging 120 lbs. Fit to head any flock.

Large White Yorkshires.

Registered Pigs for sale. Herd headed by Imported boar HOLYWELL HUDDERSFIELD No. 4850, A. Y. C., 2nd prize at Yorkshire (England) Show, 1904. Only time shown.

All pigs either bred on the place and descendants of, or directly imported from the prize winning herds of England. These pigs are prolific, hardy, and they are economical feeders. They are the bacon breed of England and the coming breed of America.

REG. GUERNSEY CATTLE.

TUBERCULIN TESTED.

Herd headed by bull, IMPORTED TOP NOTCH No. 9023 A. G. C. C. son of Imported Beda. Advanced Register No. 136, official yearly butter record 640 lbs. of butter; assisted by MAINSTAYS GLENWOOD BOY No. 7607 A. G. C. C., son of Jewel of Haddon, Advanced Register No. 92, official yearly record 463 lbs. of butter.

We are offering a bull by Imported Top Notch out of Imported Claremont Ruth IV, Advanced Register No. 130, official yearly record 474 lbs. butter, average test 5.6 per cent. butter fat. Also bull by Imported Top Notch out of Princess Dorothy who has just entered the advanced Registry. This bull on dam's side belongs to the Honoria family and is closely related to Guernsey Champion, 1st. at the St. Louis Exposition. Also other bulls from approved deep milking dams.

ALL STOCK IN FINE CONDITION.

Flocks and herds may be viewed by appointment.

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**LIVE STOCK DEPARTMENT, MORVEN PARK,
LEESBURG, LOUDOUN CO., VA.**

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Gordon Van Tine & Co., of Davenport, Iowa, are the largest manufacturers in the world of sash, doors, millwork and building material. Their catalogue tells all about their own timber lands, their own saw mills, their factories, their enormous capacity, their guarantees of quality and safe delivery, and shows why they save 50 per cent. over dealers' prices, no matter where you live. They sell by mail order only, and guarantee safe delivery and quality.

To get the benefit of this saving, whether you are a contractor, carpenter or individual user, or whether you want a \$5 or a \$10,000 order; whether you are going to build a handsome home or put storm windows in the old home, first write for the catalogue to Gordon Van Tine & Co., Station A 75, Davenport, Iowa.

This catalogue is so simple you can order everything by letter and save 50 per cent.

The catalogue is illustrated, and one of the main features is a set of pictures and complete architect's plans for five houses of moderate cost, which in itself saves many a builder the expense of having plans drawn.

Other features of this catalogue, completely illustrated, are the tables of sizes and prices on front doors, grained doors, painted doors, storm doors, white pine doors, art windows, plain rail windows, storm windows, barn windows, base mouldings, casing, sash, thresholds, lattice mouldings, hardwood flooring, window screen stock, door frames, window frames, gable ornaments, colonial columns, turned porch columns and porch newels, stair work, stair newels, porch frames and rails, stair balusters, building paper, step-ladders, window glass, glazier's supplies, art glass, etc.

A WONDERFUL OIL HEATER.

With the passing of the summer months comes autumn, and with it the chilly nights and mornings which force us to turn our thoughts to the problem of heating our houses, and we begin to look over our stoves and furnaces and get them in repair for the cold winter months.

To start stoves and furnaces in the early autumn brings more or less discomfort, for the reason that they furnish too great heat during those portions of the day when the heat of the sun is still considerable. For such times the Perfection oil heater, equipped with a device which prevents all possibility of smoking, solves this hitherto perplexing problem.

There are also many times during the cold winter months, while the furnace and stoves are in operation, when they may not be equal to the task of warming remote rooms, hallways, etc. This is more apt to be true in the early morning before the full

Tuleyries Farm.

Herefords all ages and both sexes. Holsteins all ages and both sexes. Berkshires all ages and both sexes.

ALL PURE BRED.

My prices will allow anyone to buy.

GRAHAM F. BLANDY, White Post, Clarke Co., Va.

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A choice lot of Bulls, Cows and Heifers for sale; also a few Polled Hereford Bulls, recorded in the National Polled Hereford Record.

Write for Catalogue and Prices.
FARM NEAR ALDERSON, W. VA.
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REGISTERED JERSEY CATTLE.
REGISTERED BERKSHIRE HOGS.
S. C. B. LEGHORN FOWLS.

My Stock is of the best breeding.
Prices reasonable; Write me your wants.

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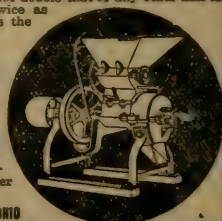
THE only mill in the world made with a double set of grinders or burrs. Will grind ear corn, shelled corn, oats, rye, wheat, barley, Kafir corn, cotton seed, corn in shucks, sheaf oats, or any kind of grain, coarse, medium or fine. The Kelly has a grinding surface just double that of any other mill of equal size, and can, therefore, do twice as much work with less power, as it is the

EASIEST RUNNING

mill made. Simple in construction, easily operated, strong and efficient. Never choke. Four sizes, any power, especially adapted for gasoline engines. Write today for our catalogue describing and illustrating the Kelly Duplex grinding mills.

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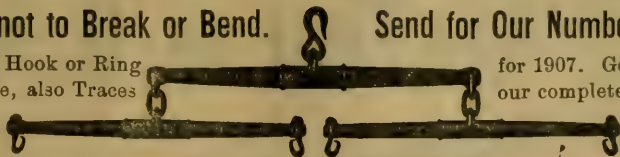


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Guaranteed not to Break or Bend. Send for Our Number 8 Catalogue

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For Plow Muzzle, also Traces

for 1907. Get acquainted with
our complete line. Their use
spells economy.



ABOVE PATTERN No. 105 MADE IN THREE SIZES

We manufacture a complete line of Doubletrees, Sing trees, and Neck Yokes of every description.
All dealers should handle them, ask yours for them and take no other.

**Pittsburg Tubular Steel Whiffletree Company, Sole Manufacturers,
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efficiency of the regular heating apparatus. At such times and in such places the Perfection oil heater will be found a very valuable auxiliary. It will enable the household to eat its breakfast in comfort instead of shivering with the morning chill.

The Perfection oil heater produces a surprising amount of heat immediately after lighting and will heat an ordinary room in a remarkably short time. They are strong and well made in a design pleasing to the eye, and they are light enough to be easily carried from room to room as required.

In these days of numerous devices for illumination, there are still many who have not provided themselves with satisfactory lamps. The Rayo lamp makes it possible for every one to have adequate light at a small cost. The Rayo lamp is the best lamp for all-round household use. It is made of brass and beautifully nickeled, and is an ornament to any room, whether in palace or cottage.

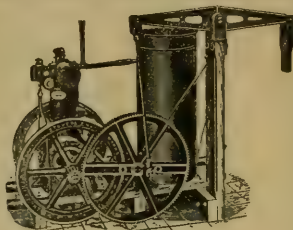
The Perfection oil heater and the Rayo lamp form a combination that makes home bright and comfortable. Their absolute safety and very moderate price make them a valuable and easy acquisition to any home. Both heater and lamp are warranted.

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When your Christmas present is a year's subscription to the Youth's Companion you give as much in good reading as would fill twenty 400-page novels or books of history or travel or biography ordinarily costing \$1.50 a volume. Nor do you give quantity at the cost of quality. For more than half a century the wisest, most renowned, most entertaining of writers have been contributors to the Companion. You need never fear that the Companion will be inappropriate or unwelcome. The boy, the girl—every other member of the family—will insist upon a share in it. There is no other present costing so little that goes so far.

On receipt of \$1.75, the yearly sub-

**Pump Water
Saw Wood
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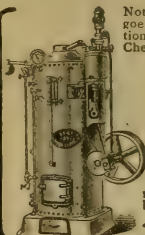


All of this and more, too, can be done with our Gasoline Engines. They are
**SIMPLE,
SAFE,
RELIABLE.**



**Sydnor Pump & Well Co., Inc.,
Richmond, Va., Dept. B.**

Power That Counts.

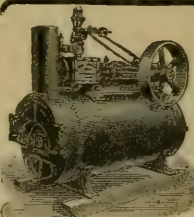


Nothing can take the place of steam. It never goes on a strike; dependable under all conditions; power in abundance; any sort of fuel. Cheapest, safest, surest, best.

**LEFFEL
Steam Engines**

adapt the old reliable stand-by power to farmers' and planters' use. Numerous small sizes. Types that meet requirements—Upright, Horizontal, Portable, on Skids, etc. Consult your interests by writing us before buying power. Send for book of information.

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YOUR WATER PROBLEM SOLVED.

You don't want to be always looking after it or repairing. But you want water always coming. Use the running stream and a

Rife Hydraulic Ram

and you can raise it any height. Cheapest and most satisfactory means of fresh water supply known. No care needed, always going, no repairs. **Sold on 30 Days Free Trial.** Send for book and investigate.

Rife Engine Co., 3113 Trinity Bldg., New York.

scription price, the publishers send to the new subscriber the Companion's four-leaf hanging calendar for 1907. Lithographed in twelve colors and gold, and subscription certificate for the fifty-two issues of the year's volume.

Full illustrated announcement of the Companion for 1907 will be sent with sample copies of the paper to any address free.

Subscribers who get new subscriptions will receive \$16,290 in cash and many other special awards. Send for information.

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PAINT PAYS.

Of all the commodities serving the convenience of the modern property owner, there is none that gives a larger return on the investment than good paint. What clothing is to the body paint is to a building. It makes us civilized and respectable and protects us against disease and decay.

The lumber in our houses is like the flesh of our bodies, subject to all manner of diseases. In the living tree the life force enables it to withstand these diseases, but the deadwood in our houses requires artificial protection or it will become a prey to the innumerable microscopic plants and animals whose work we call decay.

A well-painted house, which is repainted as often as it becomes necessary, should last practically forever, and besides adding to the self-respect of the owner is worth to him at any time in dollars and cents more than it would be worth if he allowed it to deteriorate through neglect.

Painting to-day is so simple, so easy and so inexpensive that it is a matter for wonder that any one with good money invested in buildings should be indifferent to this precaution. Good, efficient paint, ready for use can be bought in every first-class general store or hardware store throughout the United States, and using paint of this character, fifty or one hundred dollars will cover the price of the material to keep any ordinary house well painted for twenty or twenty-five years. The price of the painter's labor varies in different parts of the country, but is nowhere exorbitant, and if a good ready-mixed paint be selected for the work, his services should not be required more than once in four or five years, and then only a single coat should be necessary.

Supposing that it costs as much as three hundred dollars (and the estimate is liberal) to keep a house properly painted for twenty years, the average annual cost is only fifteen dollars a year, of which total cost of the paint itself will be less than one-third.

Any one who has had experience with carpenters' bills due to parsimony with paint will realize at once that paint pays.

P. G.

Plant an Orchard.

No matter where you are located, you should plant an orchard, either for commercial purposes or for home use. You will be astonished to learn how well it will pay you. We are in a position to supply your wants, no matter how large or small. We have nearly 1,200

acres of the finest Nursery stock we have ever raised. In fact, the best assortment in America for a commercial orchard. An inspection (which is invited at all times) will prove our claims.

Here's a select list of early apples we recommend:

YELLOW TRANSPARENT,
EARLY RIPE,
RED JUNE,
WILLIAMS' EARLY RED,
FOURTH OF JULY,
RED AMSTERDAM.

These Peaches for a Southern orchard:

RAY,
CARMAN,
BELLE OF GEORGIA,
ELBERTA.
Pears for profit:
LE CONTE,
GARBER,
KEIFFER.



Our experience of 18 years as successful nurserymen is at your command. Write us.

Send To-Day For Our Latest Catalogue

J. G. HARRISON & SONS, Berlin, Md.

..ELMWOOD NURSERIES..

—We are Growers and Offer a Fine Assortment of—

APPLES, PEACHES, PEARS, CHERRIES, PLUMS, APRICOTS, NECTARINES, GRAPE VINES in large assortments, GOOSEBERRIES, CURRANTS, STRAWBERRIES, HORE-RADISH, ASPARAGUS, DEWBERRIES, and an extra lot Raspberries. Splendid assortment ORNAMENTAL and SHADY TREES, ORNAMENTAL SHRUBS and HEDGE PLANTS.

EGGS from B. P. ROCK and BROWN LEGHORN FOWLS at \$1.00 per 13. Also a few Pullets and Cockerels of these breeds at \$1.00 each for immediate delivery. Write for catalogue to

J. B. WATKINS & BRO., MIDLOTHIAN, VA.

Tell the advertiser where you saw his advertisement.

MEADOWVIEW FARMS.

The Meadowview Farms, of Woodbine, Pa., are certainly reaping the benefit of their wisdom in showing at the fall fairs, as they write us as follows:

"It was quite a matter for us to decide whether we could afford the time to take our Berkshires out this fall, but considering it was a duty of every breeder owes his customers and himself to show what he has got, we decided it was the right thing to do.

"There is nothing like showing (followed up by judicious advertising) to sell your goods, and judging by the increased number of enquiries we are receiving from parties who 'saw our stock at the fairs' we certainly seem to have the kind that must not only be seen to be appreciated, but surely are appreciated when seen.

"We have sold since we returned from the fairs as follows: One boar and sow to Messrs. P. L. Hargett & Co., Frederick, Md.; one boar to Mr. J. H. Jones, Richmond, Va.; one sow (bred to Mr. W. F. McSparran, Furriss, Pa.); one sow (bred) to Mr. A. D. Dannaker, Knowlton, Pa.; one boar to Mr. A. W. Gaver, Middletown, Md.; one sow to Mr. J. H. Rhorbaugh, Jacob's Mills, Pa., and have several other sales booked, and pending, and I really believe that these sales came directly as a result of our advertising that we would be at the fairs to show our stock. Parties know that when we advertise that 'we can sell you something nice,' that we can surely deliver 'the goods.'

"Apart from the financial benefit derived from 'showing' there is always the pleasant recollection of having made new acquaintances and renewed old ones. Attending your State Fair, to me, was like going home, as I lived eleven years in the South and know what the good, old Southern hospitable handshake is like, and the Northern and Eastern breeders who exhibited at your fair, and with whom I came in contact, were loud in their praise of the courteous treatment and consideration received at the hands of the fair management and their assistants. For my part I feel that I am voicing the sentiments of all breeders present there when I say that I wish the fair and its officers much success, and we breeders, I know, will do our part towards its support.

"G. A. SHORTEDE, Manager."

A GOOD INTRODUCTION.

Some years ago, Macbeth, the lamp-chimney maker of Pittsburg, sent two hundred boxes of chimneys to Australia, to be sold by the box for what they would fetch at auction.

They brought 30 cents a box more than freight and handling and auctioneers' fees. But, falling into the hands of wholesale dealers, introduced themselves; and now Macbeth enjoys the leading position in the Australian trade.

Thorburn's Seeds

Awarded TWO GRAND PRIZES at the St. Louis Exposition 1904
GOLD MEDAL, Paris Exposition, 1900. & GOLD MEDAL, Pan Am. Exposition, 1901



One
hundred
and
five
years
in
business
in
New York
City

Our Catalogue —the 106th successive annual edition—is, besides being the most beautiful by reason of its numerous fine half-tones and illustrations, the most complete and most reliable of all garden annuals. It contains as usual a more comprehensive and varied assortment of high-class seeds than any other seed annual published.

Our **BULB Catalogue**, Ready August 15. **WE MAIL THEM FREE.**
Our **SEED CATALOGUE**, Ready January 1.

J. M. THORBURN & CO.

(LATE OF 36 CORTLANDT ST.)

33 Barclay St., through to 38 Park Place, NEW YORK

NOTE OUR NEW ADDRESS.

DO YOU SHIP APPLES?

Nice apples for export or for city trade should be packed in the Canadian or New York Bushel Box. Send for catalogue and prices. **SOUTH SIDE MFG. CO., Petersburg, Va.**

FOR SALE.

SIX BERKSHIRE BOARS BY A GRANDSON OF IMP. LUSTER'S BACHELOR, FROM SOWS OF PURE BILTMORE BREEDING.

R. J. HANCOCK & SON,
Ellerslie, Charlottesville, Va.

Tell the advertiser where you saw his advertisement.

GOOD HOUSEKEEPING.

MOCK TURTLE SOUP.

Scald and clean the head of a calf and set it to boil with two gallons of water, a shank of veal, three onions, a little breakfast bacon and a bunch of sweet herbs. When the head is boiled so that you can pull the meat off the bones take it from the fire and pick out the bones, gristle and fatty pieces. Strain the soup and return the chopped meat to it. Season with salt, pepper, cayenne, mace, cloves and nutmeg. Thicken with browned flour; beat up with a large spoon of butter. Just before serving add a pint of sherry or any other light wine. You may keep out a part of the meat and make a delicious pudding for breakfast with it. Put a layer of crumbs in the bottom of the baking dish, then a thick layer of the seasoned calf's head minced, then a layer of crumbs and bits of butter about on it, pour some of the liquor over and bake brown.

FRIED OYSTERS.

Pick out the best oysters, sprinkle salt and pepper over them and just a suspicion of cayenne. Beat up some eggs and dip the oysters in it; then roll them in cracker crumbs and fry in hot butter and half lard. I ate some from a lunch-room once which were rolled in meal instead of the crumbs and they were very good. If the oysters are small you can roll two together and make a better looking dish.

BOILED TURKEY WITH OYSTER SAUCE.
This is one of the recipes in use half a century ago and must be good. Else our grandmothers would not have copied it:

Have the turkey well cleaned the day before Thanksgiving; the day it is cooked let it lay in salt and water for half an hour, then fill the body and crop with a rich dressing made with bread crumbs, dry seasoned with salt, pepper, parsley and thyme and butter; secure the legs and wings and pin it up in a towel; plunge it into boiling water with a little salt in it; when half done put in a little milk. A small turkey will only take an hour while a large one will take three hours to get done; and it should boil slowly all the time. If it boils very hard it will fall to pieces. Remove the towel and garnish with hard-boiled eggs and curled parsley. Serve with oyster sauce.

OYSTER SAUCE.

Put a quart of oysters on the fire and let them plump; take out the oysters and let the liquor come to a boil; skim well and stir into it a large tablespoon of flour, season with pepper, tablespoon of flour, season with pepper, salt, mace and a drop or two of onion juice. Let it boil up, and just before sending to the table add a glass of any light wine.

CONSORT CAKE.

Six eggs and a pound of granulated sugar, half pound of butter, one pound

TREES.

First Class Nursery Stock
of all kinds.

We make a specialty of handling dealers' orders.

ALL STOCK TRUE TO NAME.

Apples,	Nectarines,	Pecans,	Ornamental and
Pears,	Cherry,	Chestnuts,	Shade Trees,
Peach,	Quinces,	Walnuts,	Evergreens,
Plum,	Almonds	Small Fruits,	Roses, Etc
Apriots,			

CALIFORNIA PRIVET, for Hedging.

WRITE FOR CATALOGUE.

AGENTS WANTED.

FRANKLIN DAVIS NURSERY CO., Baltimore, Md.

Early Cabbage Plants Guaranteed to Satisfy Purchaser



EARLY JERSEY **CHARLESTON** **SUCCESSION** **AUGUSTA** **SHORT STEMMED**
WAKEFIELD **LARGE TYPE** **TRUCKER** **FLAT DUTCH**
The Earliest Cabbage Grown Second Earliest Head Variety, than Succession
Cabbage
PRICE: Intols of 1 to 4 m. at \$1.50 per m., 5 to 9 m. at \$1.25 per m., 10 m. and over, at \$1.00 per m.

F. O. B. YOUNG'S ISLAND, S. C. My Special Express Rate on Plants is Very Low. Guarantee price to any customer who is dissatisfied at end of season. These plants are grown in the open field, on Seacoast of South Carolina, in a climate that is just suited to growing the hardest plants that can be grown in the United States. These plants can be reset in the interior of the Southern States during the months of January, February, and March. They will stand severe cold without being injured, and will mature a head of cabbage two to three weeks sooner than if you grow your own plants in hot beds and cold frames.

My Largest Customers are the Market Gardeners near the interior towns and cities of the South. Their profit depends upon them having Early Cabbage; for that reason they purchase my plants for their crops.

I also grow a full line of other Plants and Fruit Trees, such as Strawberry, Sweet Potato, Tomato, Egg Plant and Pepper Plants; Apple, Peach, Pear, Plum, Cherry and Apricot Trees, Fig Bushes, and Grape Vines.

Special terms to persons who make up club orders. Write for illustrated catalogue.

WM. C. GERATY, BOX 15
YOUNG'S ISLAND, S. C.



W. A. Miller & Son,

1016 Main St. Lynchburg, Va.

—DEALERS IN—

Seeds, Fertilizers and Wool.

SEEDS. We sell every kind of seed for field and garden of best quality, and as low as same qualities can be bought in any market.

FERTILIZERS. We sell Fertilizers for every crop under our own brands. All who have used our High Grade Tobacco Guano, Corn Grower, Wheat and Grass Fertilizers, Pure Raw Bone, and High Grade Acid Phosphate, analyzing from 14 to 16 per cent, pronounce them the best they have used.

WOOL. We buy all the year round, and PAY THE HIGHEST MARKET PRICE. Parties wishing to purchase will find it in their interest to see us before buying.

Tell the advertiser where you saw his advertisement.

of flour with one heaping teaspoon of baking powder sifted in it, one cup of rich milk, flavor with vanilla. Bake two layers of the dough plain; to the rest add one pound of seedless raisins cut fine, one quarter of a pound of shredded citron and one quarter of a pound of curants, a tablespoon of cinnamon, one of allspice, one of grated nutmeg, one tablespoon of brandy. Bake this part in three layers and put together with the plain layers with an icing filling, seasoned with lemon.

CHOCOLATE CAKE

The whites of five eggs, three cups of flour with two teaspoons of Royal baking powder, one cup of butter and one and a half cups of sugar, one cup of sweet milk. Bake in three layers. Filling: Four tablespoons of grated chocolate, a cup of sugar, three tablespoons of water. Boil the water and sugar and chocolate until it threads and pour it boiling over the whites of two eggs beaten very light. Beat until it begins to thicken and then stir into it the half of a grated cocoanut; spread between the layers and on top.

ORANGE SHORT CAKE.

Make a rich biscuit dough and cut into pieces to fit the cake pans; put three or four layers, one on top the other, in each pan and bake thoroughly done; separate the layers and butter generously; peel the orange, remove the seed and sweeten them; let stand half an hour and spread between the layers of cake. Serve with whipped cream. Bananas make a very good short cake, too.

GINGER BREAD.

Two cups of sugar, two cups of molasses, two teaspoons of sour milk, one and a half cups of butter, four eggs, four tablespoons of ground ginger, one of cinnamon, two level teaspoons of soda, eight teaspoons of flour, stirred in last; do not beat after adding the flour. Sauce: One half cup of butter and a cup of sugar, one egg and one tablespoon of hot water; wash the butter and cream it with the sugar; beat in the egg; set the bowl over hot water and stir it until it thickens; season with wine or with lemon.

GINGER SNAPS.

Three quarts of flour, one heaping teaspoon of soda, one teaspoon of salt, rub into the flour one cup of lard and one of butter, add two teaspoons of sugar, one teaspoon of sweet milk, three tablespoons of ginger, three of cinnamon, one half teaspoon of cloves, a teaspoon of nutmeg and one egg; mix all with enough molasses to make a stiff dough. Roll thin and bake in a quick oven.

CARAVEN.

Henderson county, N. C., Sept. 14, '06.
The SOUTHERN PLANTER is one of my best companions.

J. P. FLETCHER.

Isle of Wight county, Va., Sept. 15, '06.
I think THE SOUTHERN PLANTER is the best paper I know of.

C. S. JORDAN.

3½%
NITROGEN

8%

AVAILABLE
PHOSPHORIC
ACID

9%

POTASH

Big Crops of Corn

can be depended upon from land that has been liberally fertilized with a complete fertilizer containing 3½% nitrogen, 8% available phosphoric acid and 9%

POTASH

Just how and why 9% of Potash is necessary our booklet will show.

GERMAN KALI WORKS

New York—93 Nassau Street, or
Atlanta, Ga.—1224 Candler Building

W. T. HOOD & CO., OLD DOMINION NURSERIES, RICHMOND, VIRGINIA.

WHOLESALE AND RETAIL GROWERS OF

High Grade Nursery Stock

Descriptive Catalogue and Price List on Application.

Office: Chamberlayne & Rennie Ave.

Nurseries: Henrico and Manover Counties

"A Kalamazoo Direct to You"



ROYAL STEEL RANGE
For All Kinds of Fuel.

Kalamazoo's are fuel savers,—
"They last a lifetime—
Economical in all respects—
They are low in price and high in quality.—
They are easily operated and quickly set up and made ready for business.—
Bought from the actual manufacturer.—
Your money returned if everything is not exactly as represented—
You keep in your own pocket the dealers' and jobbers' profits when you buy a Kalamazoo.

WE PAY THE FREIGHT.

We want to prove to you that you cannot buy a better stove or range than the Kalamazoo, at any price.

We want to show you how and why you save from 20% to 40% in buying direct from our factory at factory prices.

If you think \$5, or \$10, or \$40, worth saving

Send Postal for Catalogue No. 400

Examine our complete line of stoves and ranges for all kinds of fuel. Note the high quality; compare our prices with others, and then decide to buy from actual manufacturers and save all middlemen's profits. Catalog shows 267 styles and sizes for all kinds of fuel. Write now. Sold on 30 Days Approval Test.

Kalamazoo Stove Co., Manufacturers, Kalamazoo, Mich.

All Kalamazoo Cook Stoves and Ranges are fitted with patent oven thermometer which makes baking and roasting easy. All stoves blacked, polished and ready for immediate use when you receive them.



OAK STOVE HEATER,
For All Kinds of Fuel



Oven
Thermometer

REPORTS.

United States Department of Agriculture, Washington D. C. Report of the Secretary of Agriculture, 1906. We are in receipt of the advance sheets of this report and find it a most interesting document. Secretary Wilson is an enthusiast in the work of his department, and as a result he has made it a powerful force for good in the development of the agricultural possibilities of the country. He has shown unmistakably that no blunder was made when the Department of Agriculture was created as a separate bureau and placed in charge of a member of the cabinet, and he has further demonstrated that the proper person to put in charge of the department is a farmer. Secretary Wilson knows by personal and practical work on the farm where the "shoe pinches" and what is needed to remedy the trouble, and as a result, largely of the work of his department and of his personal initiative, agriculture has made greater progress in the past eight years than in any previous generation and the prosperity of the farmers of the country has been correspondingly enhanced.

Bureau of Animal Industry. Bulletin 38. Tuberculosis of the Food-Producing Animals.

Bureau of Animal Industry. Bulletin 91. Feeding Prickly Pear to Stock in Texas.

Bureau of Animal Industry. An Outline of the Work of the Dairy Division.

Bureau of Chemistry. Circular 31. General Results of the Investigations Showing the Effect of Salicylic Acid and the Salicylates Upon Digestion at Health.

Bureau of Entomology. Circular 80. The Melon Aphid.

Office of Experiment Stations. Annual Report, 1905.

Office of Experiment Stations. Experimental Station Record, Vol. XVIII., No. 2.

Forest Service. Circular 36 (second edition). The Forest Service: What It is and How it Deals with Forest Problems.

Forest Service. Circular 38. Instructions to Engineers of Timber Teams.

Forest Service. Circular 44. Wood Used for Pulp in 1905.

Farmers' Bulletin, No. 266. Management of Soils to Conserve Moisture.

Farmers' Bulletin, No. 267. Experimental Station Work XXXVII. Breed, Corn, Apple Bitter Root, Grass Mulch for Orchards, etc.

Farmers' Bulletin, No. 269. Industrial Alcohol; Uses and Statistics.

Farmers' Bulletin, No. 270. Modern Conveniences for the Farm Home.

Colorado Experiment Station, Fort Collins, Col. Press Bulletin 27.

YAGER'S LINIMENT

A first-class liniment is every family's need, in fact a necessity in every household and every stable. You never know what moment an accident is going to happen, and when it does, a good liniment is the first need, and you want one that is reliable, one that will do its work and do it well. YAGER'S CREAM CHLOROFORM LINIMENT is the one to be relied upon—it never fails. It is not one of those fiery, biting lotions, but its effect is soothing, gentle and stimulating to the nerves, causing energetic action of the blood vessels, thus promoting nature's processes of healing without interruption.

GILBERT BROS. & Co.,
Baltimore, Md.

Gentlemen:—

I feel that you should know the benefits I received from your YAGER'S CREAM CHLOROFORM LINIMENT. While in the army I contracted Rheumatism, and suffered a long time with that dreadful disease. After I was mustered out of service, I returned home and tried several remedies without getting any benefit whatever. I was induced to try YAGER'S LINIMENT; I did so, and was entirely cured. I cannot say too much for your liniment. With best wishes, I am,

Yours truly,
S. M. DANIEL,
Goldsboro, N. C.



GILBERT BROS. & Co.,
Baltimore, Md.

Gentlemen:—

The Monongah Coal & Coke Co., for whom I am stockman, use 125 to 150 horses and mules and I have used YAGER'S LINIMENT in their stables for years past, and have never known it to fail to cure. For months the veterinary surgeon worked on a horse with a severe case of swoeny without results, when three bottles of YAGER'S LINIMENT cured it. I myself was laid up for eleven months with rheumatism; seven months in bed; two bottles of YAGER'S LINIMENT put me on my feet.

Yours truly,
THOS. G. PRICE,
Monongah, W. Va.



For the cure of Neuralgia, Rheumatism, Sciatica, Stiff Joints, Pains in the Back, Sprains, Cuts, Burns, Sore Throat, Swellings, etc., YAGER'S LINIMENT never fails to relieve and cure, and is man's faithful friend. In the stable it is equally as effective and useful for the Horse in the cure of Swoeny, Collar Boils, Wounds, Cuts, Scratches, Wind Galls, Strains, Sore Joints, Etc.

Yager's Cream Chloroform Liniment

has stood the test of years, and gained its popularity by real merit, it can be had from any general merchant or druggist, at 25 Cents for a large bottle, made only by Gilbert Bros. & Co., Baltimore, Md. Insist upon having YAGER'S and take no substitute.

The Farmer's Best Friend

CHARTERED 1870.

Merchants National Bank,

OF RICHMOND, VIRGINIA.

Capital, - - - - - \$200,000.00.

Surplus and Undivided Profits, - - \$805,000.

Depository of the United States, State of Virginia, City of Richmond.

Being the largest depository for banks between Baltimore and New Orleans, we offer superior facilities for direct and quick collections. Accounts solicited.

JOHN P. BRANCH, Pres. JOHN K. BRANCH, Vice-Pres. JOHN F. GLENN, Vice-Pres. THOS. B. MCADAMS, Cashier. Assistant Cashiers—J. R. PERDUE, GEO. H. KESSEE.

Three Per Cent. Interest Allowed in Savings Department.

- The Cottony Maple Scale.
Louisiana Experiment Station, Baton Rouge, La. Bulletin 87. Analysis of Commercial Fertilizers and Paris Green.
Michigan Experiment Station, Agricultural College, Mich. Bulletin 239. Fertilizer Analysis.
Bulletin 241. A Plan for the Improvement of Michigan Cattle.
Nebraska Experiment Station, Lincoln, Neb. Bulletin 94. Fattening Pigs on Corn and Tankage.
Press Bulletin 23. Ergot and Ergotism.
New Hampshire Experiment Station. Durham, N. H. Bulletin 127. The Feeding of Farm Stock.
Pennsylvania Experiment Station, State College, Pa. Bulletin 79. Alfalfa as a Forage Crop in Pennsylvania.
Texas Experiment Station, College Station, Texas. Bulletin 95. Commercial Fertilizers in 1905-'06.
Bulletin 86. Cattle Feeding Experiments.
Bulletin 87. The San Jose Scale.
Panhandle Feeds for Beef Production.
Virginia Weather Service, Richmond, Va. Report for October, 1906.
State Crop Pest Commission, Blacksburg, Va. Circular No. 1, New Series. Lime-Sulphur Wash Studies, 1904-'06.
West Virginia State Board of Agriculture, Charleston, W. Va. Report for the Quarter Ending September 30, 1906. Live Stock.
Imperial Agricultural Department for the West Indies. West Indian Bulletin, Vol. VII., No. 3.

ABSORBINE, JR., REMOVES GOITRE.

Herrin, Ill., January 6, 1906.
W. F. Young, P. D. F.:
Dear Sir,—That lump on my wife's neck (goitre) has been cured.
Yours truly, THEO. JAKLE.
Absorbine, Jr., effected a positive cure in this case and there is no reason why it should not do the same for any one else so afflicted. It is a mild remedy to use and cannot possibly leave deleterious after effects. Absorbine, Jr., is an antiseptic, discolored and resolvent. \$1.00 per bottle at all druggists, or sent postpaid upon receipt of price. W. F. Young, P. D. F., 109 Monmouth Street, Springfield, Mass.

Montgomery Ward's Stables,
No. 38 Polk St., Chicago.
Chicago, Ill., August 7, 1906.
Dr. Tuttle:
We have used your Elixir in our stables. We have found it all you claim for it, for both human and horse. We are using same.
Yours truly, WILLIAM DAX,
Superintendent of Montgomery Ward's Stable and Horses, Chicago, Ill.

FREE If you are interested in **Concrete Construction** you should have our book **"CONCRETE CONSTRUCTION"** **ABOUT THE HOME AND ON THE FARM"**

It is the A. B. C. of Concrete work and contains:—
photographs, descriptions, specifications and sectional drawings for many of the smaller structures that can be built by the suburbanite or farmer without the aid of skilled labor. Also much general information and many valuable hints to small contractors.

A copy of this book sent free
upon request

The Atlas Portland Cement Co.

30 BROAD STREET, NEW YORK CITY.

We Sell You Doors 80¢ **ALL HIGH GRADE AND AT HALF YOUR LOCAL DEALER'S PRICES** **Windows 62¢**

If you have any use for Doors, Windows, Storm Sash, Stair Posts, Mouldings, Porch Brackets, Columns or any kind of Millwork for your own buildings or as a contractor, don't buy elsewhere until you write us for our illustrated catalog. It quotes you at least 50 per cent lower prices than your local dealer or any retailer or "mail order" house possibly could, as we are manufacturers with the largest mill in the world.

We sell our Millwork only direct to the user. We ship anywhere in the United States and guarantee to make you a clean saving, freight included, of from 25 to 50 per cent on anything you order. Just send us a postal with your name and address and we'll promptly send, postpaid,

Our Grand Illustrated Millwork Catalog

showing everything in the latest styles of High Grade Millwork at lower prices than you have ever thought possible.

You can get an idea by the few illustrations and prices in this small space of what a saving you can make by buying from our catalog, but you must see the catalog to fully appreciate this selling plan of ours direct to you.

Do not think of buying until you get our estimate.

Our work is all Guaranteed strictly up to the Official Grades adopted by the

GORDON VAN TINE & CO., Station 475, DAVENPORT, IA.

Sash, Door and Blind Manufacturers' Association of the Northwest, and if not exactly as represented in every particular, you can ship your order back at our expense.

Our lumber is first air-dried and then put through a scientific drying process. Joists are made with heavy hardwood down pins, glued with imported glue, pressed together by heavy steam-power press. There is no "come apart" to our work.

Remember, you save 50 per cent, freight included, on your Local Dealer's prices.

We operate the largest mill in the world—150,000 feet of floor space (four acres)—have been in business since 1865—own our timber lands, saw-mills and lumber yards.

We carry a large stock and can therefore ship promptly.

We have no traveling men—sell only for cash. We are the only large manufacturers of sash, doors and blinds selling direct to the consumer. Our prices will astonish you. Don't buy anything in your line until you get our catalog, the grandest wood-work catalog published.

Your banker, or any banker in Davenport, Iowa, our home, will satisfy you that we are thoroughly responsible.

Our catalog will explain everything to you. Write for it today. You will receive it by return mail, postpaid.



Windows
62¢
Regular \$1.50



High Grade
Door **80¢**
Regular price \$2.00

STAIR NEWELS
From \$1.60 to \$4.25
Worth \$2.00 to \$2.90

Tell the advertiser where you saw his advertisement.

MAGAZINES.

A book beautiful is the Christmas Century, the publishers feel, a number to set a new standard of artistic beauty and literary richness in the magazine world; without, a Della Robbia group in blue, gold and black; within, four pages in color and several in photogravure and tint, and many sorts of seasonable articles. The frontispiece is a reproduction of Mr. Sligsmoed de Ivanowski's portrait of Maude Adams as Peter Pan, which has caught the charm and jousness of the character. Other pages in color show Horatio Walker's "Ave Maria," Anna Whelan Betts' "The Belle of the Christmas Ball," and J. S. Leyendecker's interpretation of William Vaughn Moody's imaginative poem, "The Death of Eve."

The fiction is unusual. Pretty, pathetic, appealing little Rosalie, with her barren title of Lady Anstruthers; Betty Vanderpoel, with her rare, young, strong charm—the magic of Mrs. Burnett's pen is making these American girls very much alive to readers of "The Shuttle." From the first chapters the love and suffering and joys of these heroines, and of the other men and women of the story, are very real. In the December chapters there develops an appealing dramatic situation with a cleverly handled background of humor and pathos. Readers of A. E. W. Mason's "Running Water" will find themselves more and more caught in the fascination of its plot and the rare character delineation. Charles G. D. Roberts has written a vivid tale in "A Stranger to the Wild"; and there are short stories by Irving Bacheller, Henry M. Hyde, Harry Stillwell Edwards, Oscar King Davis and John Corbin.

The number is rich in substantial papers on current topics. Secretary Taft writes authoritatively of the Panama Canal in general, and in particular of the reasons why a lock canal was preferred to the sea-level system; James J. Hill, president of the Great Northern Railway, makes a plea for a model farm in every agricultural county of the United States, and the author of "Letters from a Chinese Official," G. Lowes Dickinson, in a paper entitled "Eastern and Western Ideals," makes rejoinder to W. J. Bryan's criticism of his book, "Letters to a Chinese Official."

The December chapters of Mr. Oberholtzer's "Jay Cooke, and the Financing of the Civil War" deal with days and events of stirring and sensational interest.

From its gay Santa Claus over to its last bit of nonsense verse, the December St. Nicholas is full of delights for young readers. There is a charming frontispiece in color by that favorite artist, Reginald Birch; there are four pages of "Christmas Joys" by Emilie Benson Kulpe; there are the first chapters of a sunshiny story of a little

STEVENS



You 'get the jump' on frogs if you use a quick-acting, straight-shooting Stevens Rifle. Its records for accuracy in official tests is unapproached by any other make.

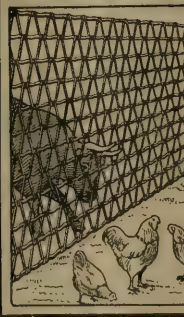
Use a Stevens and get results in frog shooting—the severest test of reliability in firearms. Here is a list that should interest you:

RIFLES FOR BOYS	
Little Scout	\$2.25
Stevens-Maynard, Jr.	\$3
Crack Shot	\$4
Little Krag	\$5
Favorite No. 17	\$6

Send 4 cents in stamps to cover postage for our FREE CATALOG—it tells all about guns, rifles, pistols, ammunition, sights, targets, rebores, old barrels, and a hundred things a sportsman wants to know. For 6 cents in stamps we will mail our artistic tencolor lithograph. It is an attractive hunting scene worthy of space on any wall. Don't let your dealer persuade you some other is as good. Insist on "Stevens." You can order direct from us if you find any difficulty. We send any "Stevens" firearm express prepaid, or receipt of catalog price.

J. STEVENS ARMS AND TOOL CO., 480 Pine Street, Chicopee Falls, Mass., U.S.A.

STRONGEST FENCE MADE



When you buy our High Carbon Coiled Spring Fence you buy strength, service and durability combined. Twenty years of experience—hard knocks, between posts. Every pound of wire in our fence is made in our own wire mill from the best high carbon steel. We give

CLOSELY WOVEN FROM TOP TO BOTTOM

Our Fence is so closely woven that small pigs cannot "wiggle" through it. So strong the vicious bull cannot "faze" it. We have no agents. We do not sell to dealers but sell direct to the user

AT WHOLESALE PRICES FREIGHT PREPAID

Coiled Wire provides for contraction and expansion and prevents sagging between posts. Every pound of wire in our fence is made in our own wire mill from the best high carbon steel. We give

30 DAYS FREE TRIAL

That our customers may be sure they are satisfied. We make a full line of FARM AND POULTRY FENCE. Our Wholesale Prices will save you money. Write today for our 16 page free Catalog.

COILED SPRING FENCE COMPANY, Box 52 Winchester, Indiana.

SAMPLE BROWN FENCE FREE

15 to 35 cts. Per Rod Delivered

You can examine Brown Fence and know just what it is before ordering or paying one cent. We mail you a sample showing size and quality of wire. When you get the sample, test it with a cold chisel and see how hard, tough and strong it is. File off the galvanizing and see how thick THAT is. All wires—both strand and steel wires—are No. 8 gauge, and made of the best grade of steel. Weighs 4 1/2 lb. more to the rod than most fences, and

will last double the time. A more rigid, firm, staunch, steel-resisting, time-defying fence was never stapled to posts. Price five to nine per rod, and we pay the freight on 40 rods or more. Write for catalogue showing 123 styles of fences. We also sell direct to farmers at lowest wholesale prices—Coiled Spring, Barb and soft Galvanized Wire, Gates and Poultry Netting. Save money by ordering direct from us. Address

THE BROWN FENCE AND WIRE CO., Cleveland, Ohio.

American lad in Japan by Mrs. Alice Hegan Rice, and the beginning of a rattling new short serial by Ralph Henry Barbour, "The New Boy at Hill-top." There is a Christmas story, "A Cousin-Hunt," by E. Vinton Blake, who wrote "A Mislaid Uncle" for the Christmas St. Nicholas of last year, and the same fine John James Alston plays the chief part. There are new experiences of little Abbie Ann, who gives promise of being as great a favorite as George Madden Martin's earlier creation, Emmy Lou. There is another Pinkey Perkins story, "How the Coasting Party Ended," and a jolly "Dolly Dialogue" by Carolyn Wells.

Best of all is the first half of a new and altogether fascinating fairy tale by Frances Hodgson Burnett, in which Queen Silver Bell tells all about "Racketty-Packetty House," with this word of introduction:

"Now this is the story about the doll family I liked and the doll family I didn't. When you read it you are to remember something I am going to tell you. This is it: If you think dolls never do anything you don't see them do, you are very much mistaken. When people are not looking at them they can do anything they choose. They can dance and sing and play on the piano and have all sorts of fun. But they can only move about and talk when people turn their backs and are not looking. If any one looks they just stop. Fairies know this and, of course, Fairies visit in all the dolls' houses where the dolls are agreeable. They will not associate, though, with dolls who are not nice. They never call or leave their cards at a dolls' house where the dolls are proud or bad tempered. They are very particular. If you are conceited or ill-tempered yourself, you will never know a fairy as long as you live."

All in all, there is a Christmas spirit to the number which is likely to appeal not alone to the children, but to the older members of the household as well.

WHO'S WHO IN THE CHRISTMAS LIPPINCOTT'S.

Caroline Wood Morrison, who contributes the Christmas novel, "Queen Mary of Memory Lane," is a New Yorker by birth and, by adoption, a daughter of the South. As the wife of a Chattanooga physician, and the mother of two devoted sons, her lines are cast in pleasant places. She loves humor and humanity alike, and she says that while she is a club woman, a church woman and a horse woman, she is most of all a home woman. Mrs. Morrison's life has not always been untroubled as now. She has passed through shadows such as she depicts



We make fence better and better. Why.

Tell you why. The manufacturer that makes any article better than anyone else, sooner or later will enjoy the biggest trade in that article.

If he is wise, he will strive always to improve on the best, to keep it the best—to keep it the *biggest* seller in his line.

And because of his greater volume of sales, he can make improvements at less cost per gross, or ton, or rod, as the case may be.

Eighty per cent of all the wire fence made and sold is

AMERICAN FENCE

The reason is—*better* fence. The best fence brains in the world are constantly at work striving to make American Fence better, stronger longer-lived—to keep it best. Recent improvement—better galvanizing—adds to the life of the fence, decreases its cost per rod per year.

Drop me a postal and tell me how much fence you will need this year.

I will write you a personal letter about American Fence and send you this combination key-ring, screw-driver and bottle-opener.

SENT
TO YOU
FREE

3762

IF PLACING ORDER TO
AMERICAN STEEL & WIRE CO.
CHICAGO, AND RECEIVING RETURN

NOTE—I want to send you the combination key-ring, shown in the corner, with our compliments, as a continual reminder of American Fence. We register your name and number on our books, and return keys, without cost, if found and sent us.

FRANK BAACKES

Vice-President and General Sales Agent
American Steel & Wire Co.
Chicago, U. S. A.

When corresponding with our advertisers, always mention The Southern Planter.

DON'T BUY GASOLINE ENGINES

UNTIL YOU INVESTIGATE "THE MASTER WORKMAN," a two-cylinder, gasoline, kerosene or alcohol engine, superior to any one-cylinder engine, revolutionizing power. Its weight and bulk are half that of a single cylinder engine, with greater durability. Comes easy to buy—easy to run. Quickly, easily started. Vibration practically overcome. Cheaply mounted on any wagon. It is a combination portable, stationary or traction engine. SEND FOR CATALOGUE. THE TEMPLE PUMP CO., Mrs. Meagher and 16th Sts., Chicago. THIS IS OUR FIFTY-THIRD YEAR.

in this story of deep human feeling, though much of it is the fruit of her wonderful imagination.

Aldridge Evelyn, author of the modern sea yarn, "Chilo," is a young Englishman who is making a brave fight for health—and winning it, too—here in the States. At 14 he answered the call of "the glad waters of the deep blue sea" and later became lieutenant in the Royal Navy of Great Britain. A couple of years ago, after traveling pretty much all over the world, illness drove him to our hospitable shores. Here he is growing strong, and both giving and gaining pleasure through the production of such cheerful tales as "Chilo."

Constance Smedley is an Englishwoman who is favorably regarded in magazinedom. Her "Queen Copetua" is a clever bit of satire aimed at prevailing social customs. Lawrence S. Mott is a New Jersey man with a talent for humorous fiction along political and business lines, of which "The Lobbyist in the Niche" is characteristic.

Edward Childs Carpenter, the writer of "The Miracle at Bended Spur," is the author of several novels and engaged in newspaper work in Philadelphia. He is also a member of the Quaker City's famous literary club, "The Franklin Inn," of which Dr. Weir Mitchell is president.

BOOKS.

Alcohol: Its Manufacture from Farm Products and Denaturing. By F. B. Wright. 202 pages, fully illustrated with original drawings of necessary apparatus. \$1 net. Spon & Chamberlain, 123 Liberty Street, New York.

With the passing of the free alcohol act a very large field is opened to the farmer and manufacturer and almost a new industry started. The art of the distiller is, of course, as old as civilization itself. It is, however, but comparatively recently that alcohol has come into prominence as a cheap and effective fuel for household and industrial purposes and as a competitor with kerosene and gasoline.

Mr. Wright's book is intended to be a guide to the production of alcohol by simple processes and from common farm products. It contains full description of the various forms of stills. It also contains very complete directions as to the preparation of various mashes, their fermentation and the ultimate denaturing of the alcohol produced therefrom.

The volume is not intended for the big distiller whose plant uses complicated apparatus, but for those who intend to make alcohol on a comparatively small scale.

In addition to the directions for making alcohol from potatoes, grain, beets, etc., and a description of the apparatus required, the book contains very full synopsis of the government regulations under which free alcohol may be produced. The matter is

WORLD'S BEST BUTTER FROM DE LAVAL CREAM

Cream skimmed by a DE LAVAL separator can be made into butter SUPERIOR to that which can be made from cream skimmed by any other separator or system. This is the FACT,—the proof of which grows more and more conclusive each year. Following is a list of the more important STATE FAIR FIRST HONORS awarded DE LAVAL users during 1906:

OHIO—Conover Creamery Co., Greenville.....	Score 98
INDIANA—Ray & Arnold, Logansport.....	" 97
ILLINOIS—W. J. Kane, Morrison.....	" 97
WISCONSIN—W. J. Clark, Troy Center.....	" 97
MINNESOTA—M. Sondergaard, Hutchinson.....	" 98
IOWA—R. Rergsather, Northwood.....	" 98½
SIOUX CITY—C. J. Rohde, Manchester, Iowa.....	" 99

Of special note are the awards made at the Ohio State Fair, where the highest score of 98 went to butter entered by the Conover Creamery Co., of Greenville, MADE FROM DE LAVAL HAND SEPARATOR CREAM, while the butter receiving the second highest score of 97 was also made from DE LAVAL HAND SEPARATOR CREAM by the Glen Echo Creamery of Springfield. Here, as in many other instances, we have a practical demonstration of how much the DE LAVAL separator means in both creamery and farm separation.

All highest awards in every contest of the National Butter-makers Association, from 1892 to 1906, including the great Dairy Show in Chicago this year, have been won by users of DE LAVAL machines. The butter receiving highest score at the World's Exposition in Paris in 1901 was DE LAVAL made, as was also the Grand Prize butter of the St. Louis World's Fair in 1904. A DE LAVAL catalogue will help to make plain why DE LAVAL cream is superior. Write for it to-day.

THE DE LAVAL SEPARATOR CO.

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9 & 11 DRUM ST.
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109-113 YOUVILLE SQUARE
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14 & 16 PRINCESS STREET
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Connecting the

Atlantic Coast Line Railroad
Baltimore & Ohio Railroad
Chesapeake & Ohio Railway
Pennsylvania Railroad
Seaboard Air Line Railway
Southern Railway

Between All Points
via Richmond,
Virginia, and
Washington, D. C.



The Gateway

between the

North and the South



Fast Mail
Passenger
Express and
Freight Route

W. P. Taylor, Traffic Manager

clearly set forth and the methods described have all had the approval of experience. It is fully illustrated with clear and carefully-drawn diagrams and cuts.

The Useful Collie and How to Make Him So. By W. A. Sargent. Everyone keeping a collie dog—and every stock owner should have one—should have a copy of this booklet. Send to Maplemont Stock Farm, Rutland, Vt., for it. Price 25 cents.

Concrete Construction About the Home and Farm. Published by the Atlas Portland Cement Company, 30 Broad Street, New York city. With the aid of this book every farmer can learn how to make and lay his own concrete floors and walks and erect buildings. Send to the company for it. Their advertisement will be found in this issue.

CATALOGUES.

Price list of reliable tobacco seeds grown by Slate Seed Company, successors to R. L. Ragland Seed Company, Hyco, Halifax county, Va. Meadowview Farms, Woodbine, Pa. Berkshire hogs.

Practical Talks About Practical Grinders. Manufactured by Royal Manufacturing Company, Lancaster, Pa.

The Marlin Firearms Company, New Haven, Conn. Marlin rifles, etc. Vinecrest Farm Kennels, Box 104, Falls Church, Va. Breeders of high-class Scotch collies.

William Galloway Company, Waterloo, Iowa. The Galloway wagon-box manure spreader.

W. H. Coffman, Bluefield, W. Va. Catalogue of large English and American Berkshire Hogs.

Annual Egg Circular of the Foxhall Poultry Farm. John L. Roper, proprietor; Charles Ainge, manager, Norfolk, Va.

A GREAT SEED BOOK.

Ferry's great seed book is now ready for distribution. This is the book that every farmer wants and waits for. It makes no difference what other catalogues are received, farmers want Ferry's, because of the information it contains.

Ferry's Seed Annual, in fact, is really more than a catalogue. It differs from the usual seed catalogue inasmuch as it really helps each farmer or gardener to choose intelligently the varieties best suited to his particular needs. The wise selection of varieties results in bigger, better paying crops. The experience gained in fifty years of successful seed growing is thus at your command.

Just drop a postal to D. M. Ferry & Co., Detroit, Mich., and they will send you a copy of their 1907 Seed Annual. It's absolutely free.

Mention The Southern Planter.

**What
You
Can
Do**



**With
This
Oil
Heater**

With a Perfection Oil Heater you can heat a cold bed-room, make a sick-room more comfortable, warm a chilly hallway, heat water quickly, and do many things better than can be done with any other stove no matter what fuel it burns. The superiority of the

PERFECTION Oil Heater

(Equipped with Smokeless Device)

lies in the fact that it generates intense heat without smoke or smell. The oil fountain and the wick carrier are made of brass throughout, which insures durability. Gives great heat at small cost. Fountain has oil indicator and handle. Heater is light and portable. Absolutely safe and simple—wick cannot be turned too high or too low. Operated as easily as a lamp. All parts easily cleaned. Two finishes—nickel and japan. Every heater warranted. If not at your dealer's write nearest agency for descriptive circular.

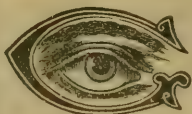
The **Rayo Lamp**

can be used in any room and is the best all-round house lamp made. Gives a clear, steady light. Is the safest lamp you can buy. Brass throughout and nickel plated. Equipped with the latest improved burner. Handsome—simple—satisfactory. Every lamp warranted. Write to nearest agency if you cannot get it from your dealer.



STANDARD OIL COMPANY OF NEW YORK

EVERYTHING OPTICAL and PHOTOGRAPHIC



During the Holiday Season you may wish to give some of the

family or perhaps a friend a token of remembrance. We would suggest a nice pair of SPECTACLES, EYE GLASSES, or OPERA or FIELD GLASSES. Or a KODAK or CAMERA. We can supply you anything you need in OPTICAL or PHOTOGRAPHIC line. MAGNIFIERS, TELESCOPES OUT-DOOR, INCUBATOR, BROODER, or DAIRY

THERMOMETERS, and would like to quote you prices or send information.

The S. Galeski Optical Co.

8th and Main St., Richmond, Va.

A VALUABLE PURCHASE.

The recent purchase of the saddle stallion, Greatland 1408, by J. F. Cook & Co., of Lexington, Ky., is a most valuable acquisition to their stud. Few, in any, saddle stallions of his age have equaled his record as a sire. He sired Jack Starbright, the undefeated yearling of 1906, winner at the State Fair and at all of the fairs in the Kentucky circuit. It is doubtful if this colt has had a superior in the yearling class in recent years. Greatland also sired a 2-year-old colt that has grown to be quite a sensation in Texas by winning all of the blue ribbons he went for. Considering the fact that Greatland was in Illinois for two years, with little or no chance at the stud, makes his success more remarkable. Producing such winners as the above should be sufficient guarantee as to the value of this great saddle stallion. He is a son of the renowned Highland Denmark 730, and is regarded by many as the best producing son of that great sire. His dam was Catherine Denmark 536, by Fayette Denmark 60; second dam Pattie Denmark, by Diamond Denmark 68; third dam Fannie, by Basil Duke. This young stallion in the future will be at the head of the stud of J. F. Cook & Co., of Lexington, Ky., who own a large band of very high class and well-bred broodmares.

Parties desiring to secure some good saddle or trotting horses will be able to find them in Messrs. Cook & Co.'s barns hereafter in a better quality than ever before. They are maintaining the high standard of their stock by making this purchase.

Record No. 49558—Old case of fistula; thought incurable and owner gave horse away; recipient cured him with Fleming's Fistula and Poll Evil Cure, and later refused \$100 for the same animal. Fleming's Vest-Pocket Veterinary Adviser free by writing to Fleming Bros., 280 Union Stock Yards, Chicago.

BARBED-WIRE FENCES.

The man who uses ordinary soap for shaving will soon find out how a horse feels when he gets mixed up with a barbed-wire fence. You can a new face, no matter how irritated a new face, no matter how irritated or blotchy it gets or how badly it itches. Avoid laundry or toilet soap for shaving as you would a barbed-wire fence. Williams' Shaving Soap is made especially for shaving, and in another column of this paper is an offer of a trial sample for a 2-cent stamp. "For the sake of your face, try it."

Warwick county, Va., Sept. 11, 1906.

Every farmer in this section of the country should certainly take and read THE SOUTHERN PLANTER, and farmers in every part of the United States would find it helpful. S. P. YODER.

Sure Hatch Incubators

Have the Highest Hatching Record

and the lowest selling prices. They will hatch chicks for you cheaper and better than hens, or other incubators.

The Sure Hatch runs itself and pays for itself, or we take it back at our expense. Guaranteed for 5 years and made to last a lifetime.

You can set it any place where a hen might be housed. Hatches when you "set" it, and you "set" it when you are ready, summer or winter.

No trouble to have "early hatched" chickens, if you use a Sure Hatch. Used successfully and most highly recommended by more practical poultry raisers than any other incubator on earth, none excepted.

For ten years we have been making and selling the Sure Hatch, freight prepaid, for prices that put it in a class by itself.

Anybody can make a cheap incubator, but when it comes to delivering one that positively will hatch cheaper and better than hens, and is covered by a responsible guarantee that it will do its work year after year—that's a proposition that is not so easy.

We do this very thing. We have the facilities and experience that make it possible.

We operate the greatest incubator



and brooder factory in the world. Our experimenting for improvement never stops. These facts enable us to turn out machines, strictly up-to-date—leaders always—imitations never.

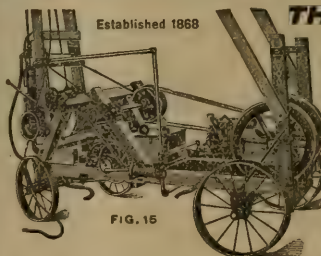
Our customers are successful from the start, because we know how and what to tell them, that they may get the results that pay, without disappointments.

Our new 100-page illustrated Sure Hatch book tells all about our machines and low prices. Besides it is a very helpful poultry book. Write us today for one of these free books.

Sure Hatch Incubator Company

Box 8, Fremont, Neb., or Dept. 8, Indianapolis, Ind.

Note—July 1, 1906, our main office and factory were removed from Clay Center to Fremont, Neb.



Established 1868

FIG. 15

THE AMERICAN WELL WORKS,

Aurora, Illinois, U. S. A.
Chicago, Ill. Dallas, Tex.

MANUFACTURE FULL LINE

Jetting, Rotary, Coring, Rock
Drilling and Prospecting
Machinery.

Any Diameter or Depth. Strong
and Speedy.

CATALOG MAILED ON REQUEST.

Pulls Stumps or Standing Trees.

Clears a two-acre circle with one sitting—pulls anything the wire rope will reach; stumps, trees, grubs, rocks, hedges, etc. A man and a boy with one or two horses can run the

COMBINATION STUMP PULLER,

Stump Anchored or Self Anchoring.

A minute and a half it all takes for the ordinary stump. No heavy chains or rods. Note the strong wire rope with patent coupler—grabs the rope at any point. Does not chafe ropes far ahead of old-style "take-ups." Smallest rope we furnish starts 4,000 lbs. strain. It generates immense power and it's made to stand the strain. We also make the Iron Giant Grub and Stump machine, the L. X. L. Grubber and Hawkeye Grub and Stump Machine. Write for free illustrated catalogue. Largest manufacturers of Stump Pullers in the World.

Established 1868

MILNE MFG. CO.,
834 6th St., Monmouth, Ill.



MILK.

The increased production and consumption of milk and milk products is nothing short of marvelous. Instead of a nation of beer guzzlers, we are a nation of milk drinkers, as both milk and beer can be had at most all city bars. We consume annually in the raw state alone twenty billion pounds of milk, or ten billion quarts—250 pounds to every man, woman and child. Our total annual production is nearly seven hundred billion pounds, of which we consume three-fourths, and yet some think the home market is of little account. New York city alone uses three million pounds of milk every twenty-four hours, and Gothamites are said to drink other beverages as well. A quarter century ago the territory within a radius of fifty miles could supply the metropolis with milk; now they bring it three or four hundred miles and are still reaching farther. The price is soaring also, and 3½ cents per quart, or \$1.82 per hundred, is offered the producer for December milk, and the consumer will probably have to pay from 9 to 10 cents. Thirteen may be an unlucky number, but the dairyman can hardly consider it such when it is the price of a pound of cheese. Butter is also near the 80-cent mark, and what is true of New York is true of other States relatively.

Milk is a common, a natural and a complete food, containing all of the elements required to renew the body and repair the waste. Not only is it easily digested, but it is an economical food as well. One dollar's worth of milk in nerve and energy producing and tissue building nutrients is nearly twice as great as beef sirloin at the usual prices of each. Eggs comprise the next most economical food. The enormously increased consumption of eggs, milk and milk products is due to a better knowledge as to their food value and the enhanced price and poor quality of beef.

There is no department of agriculture that is to-day receiving the attention that is being devoted to the subject of milk production and manufacture. Chemists, scientists, business men and government officials are pursuing their researches and delving into the mysteries and possibilities of the lactical fluid. They have condensed it and put it into dry form, and it is idle to speculate on what they will do next. Though old as man, the subject is ever new—new uses and discoveries along this line being made every day. To-day the profits on the products wrought from whey and skim milk are far greater than upon butter and cheese, in fact, more than twice as great. Sugar of milk has been made in this country less than fifteen years, and even now there are only about a dozen milk sugar factories, nearly all controlled by one concern. New fields are opening daily for milk sugar and the consumption of this product will probably double in less than ten years.

PERUVIAN GUANO

A COMPLETE NATURAL MANURE

ANALYZING

Chincha Island.	Lobos Island.
8.70 Per Cent. Ammonia	4.00 Per Cent.
9.40 Per Cent. Phosphoric Acid	20.00 Per Cent.
1.90 Per Cent. Potash	2.75 Per Cent.

FERTILIZER MATERIALS FOR HOME MIXING.

Nitrate of Soda,	Nitrate of Potash,	Sulphate of Potash,
Muriate of Potash,	Kainit,	Basic Slag.

PERUVIAN GUANO A SUPERIOR BASE FOR HOME MIXING.

Peruvian Guano is a material that commends itself strongly as the best possible base for home mixtures. By its use the necessity for using a large number of materials in compounding is entirely done away with. Such materials as ground bone, tankage, dry ground fish, dried blood, acid phosphate, etc., are not needed, since the Peruvian Guano supplies all the plant-food elements furnished by these materials, in choicest forms, and already intimately mixed and combined by nature.

We have a 76-page Book on the "home mixing" of fertilizers, entitled

"PLANT FOOD PROBLEMS."

A request by postal will place this valuable book in your hands.

THE COE—MORTIMER COMPANY,

33 Broad Street,

Charleston, S. C.

SAM JONES'

LIFE AND SAYINGS

BY HIS WIFE

AGENTS WANTED

AGENTS ARE COINING MONEY. SEND 50c FOR CANVASSING OUTFIT AND CONTRACT FOR TERRITORY

BIG BOOK, 7x10, PRICE \$2.50 AND \$3.50

L. J. NICHOLS & CO.,

ATLANTA, GA.



The "Kant-Klog" Sprayers



A slight pressure of the thumb starts the spray.

Something New. Gets twice the results with same labor and fluid. Flat or round, fine or coarse sprays from same nozzle. Ten styles. For trees, vines, vegetables, whitewashing, etc. Agents wanted. Booklets free.

Rochester Spray Pump Co.,

21 East Ave.,

Rochester, N. Y.

No part of the milk should be wasted except the water. Even the butter-milk can be worked up. But this is only the tendency in all manufacturing enterprises—everything is worked up, and the chief profit in many of them is wrought out of the by-products that were formerly thrown away. Some purpose for everything can be found.

Agriculture is the basis of all civilization. The corollary of this proposition is, of course true, that the highest civilization is found where agriculture has reached its greatest development. The improvements in the methods and practice of farming in the last fifty years make the founders of the republic look like the proverbial 30 cents, with all their wisdom. Head work has supplied hand work, and to-day the farmer ploughs, sows, reaps, threshes and grinds all by machinery. As he sows, so does he reap, and he reaps plentifully. The successful farmer of this age could no more do things like his grandfather than he could press the oak back into the acorn. The evolution of agricultural methods is more like a revolution. Production in almost every branch has increased over 100 per cent. The farmer is a true benefactor, for he has surely made "two blades of grass grow where but one grew before." Increase in population will demand a still further increase in productive capacity, for the amount of land is not growing. Smaller farms and more intensive cultivation will be the program of the future. Only one invention yet remains to be born, the milking machine, to make life easy on the farm. [This is already here and in work in Virginia.—Ed.] As necessity is the mother of invention, we may be sure of the offspring. In fact, the wise men of the East have already heralded its coming.

Surely the cow is the noblest of animals and is producing noble results. With the rapidly increasing consumption of milk and milk products and the expanding uses of the same, the outlook for the farmer is decidedly rosy. He sits in the "drivers seat," if he but realized it. And as agriculture is the basis of all prosperity as well as civilization, we trust that some of the farmer's increased prosperity will percolate down through to the rest of us.—Myron H. Bent, Antwerp, N. Y.

Mecklenburg county, Va., Sept. 4, '06.
Your valuable paper is always a welcome visitor; It is indeed the "leading agricultural journal of the South" and should be in the home of every farmer. G. H. FINCH.

Amherst county, Va., Sept. 18, 1906.
I am always hungry for THE SOUTHERN PLANTER, as it gives so much practical food for farm and garden, that the longer I read it the more I long for the next issue; and it is of a large, clean print, too.

JOHN REICHLER.

**Saves You
50%**

**30 Days
Free
Trial**

**Wagon
Box Manure
Spreader**

\$59.50 Freight
Prepaid

**Guaranteed
and Backed by a
\$25000.00 Bond**

FITS ANY TRUCK.

Miller Testimonial Letter.

I have thoroughly tried your two horse spreader. Have hauled over 300 loads of manure of all kinds and it did the business to a queen's taste. It has caused no trouble whatever. My 15 year old boy used it without any trouble. I am recommending it to my neighbors and friends. I thought all spreaders were troublesome but you have changed my mind. LEWIS MILLER.

No spreader made a third as simple as the Galloway. But one operating lever. Many new features such as our endless apron conveyor,—solid bottom box and double chain drive.

We positively guarantee the Galloway to handle any kind of manure.

Sold direct to the buyer without one cent paid to us in advance. We pay the freight and save you 50%.

My Spreader Booklet tells you all about this New Spreader—for every farmer. I want you to read in it what my customers think of it; and some interesting things about the future of your land in fertilization. It's free. Just write me personally a letter or postal.

**WILLIAM GALLOWAY, President,
WILLIAM GALLOWAY COMPANY,
219 Jefferson St., Waterloo, Iowa.**

Write your name and address plainly on this A., cut it out and send it to me.

SOLD direct from my factory to you.

Built on honor. Not how cheap but how good, is my motto.

After I have made them as good as I can, then I make the price as low as I can.

A spreader for \$29.50. A spreader that I personally guarantee to work as well or better than any other spreader on the market to day.

My guarantee is the broadest possible—and backed up by a \$25,000 legal bond.

To show you my confidence I will send you one, you take it out in the field and use it, or abuse it if you want to, for 30 days, and if you don't find it worth more than the \$59.50 I ask for it, just take it back to the depot and ship it back to me. I will pay the freight both ways. You can try it for nothing—and at no risk.

My free trial plan is such that you don't have to send me one cent in advance. You get my plan when you get my booklet.

I save you over one half the price you would have to pay for any other spreader as you use your own wagon truck. Why tie up \$65 in a spreader truck, useless 11 months in the year?

An important feature of the Galloway Spreader is its light draft. Two horses will haul it. Read what Mr. Miller says about it:



William Galloway,
Builder of the only Wagon
Box Spreader called the
"Galloway."

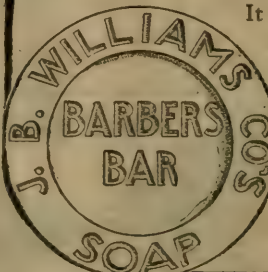
Williams' Shaving Soap

The lather from cheap, common soap is thin, harsh and quickly drying. If used for shaving it burns and irritates the face. The lather from Williams' Shaving Soap is rich, thick, creamy and emollient. It makes easy work for the razor and it keeps the face comfortable and healthy. Which do you choose?

**Send 2c. stamp for trial sample
(enough for 50 shaves).**

Williams' Barbers' Bar, Yankee, Mug, Quick & Easy Shaving Soaps and Williams' Shaving Sticks.—Sold everywhere. Address,

**THE J. B. WILLIAMS COMPANY,
Dept. A, Glastonbury, Conn.**



Tell the advertiser where you saw his advertisement.

AN OLD SUBSCRIBER.

Mr. William James Walton, of Apple Grove, Va., writing us a few days ago remitting the renewal of his subscription for three years says: "I reckon I am the oldest living subscriber to your paper. It has been a constant visitor to my house since 1845; then C. T. Botts was editor. I used to love to read it, but lost my eyesight about fifteen years ago, so I cannot read it now, but my son reads it to me and I enjoy it yet. It ought to be in every farm house." We are pleased to know that our friend has been so long a reader of THE PLANTER. He is probably right as to being the oldest reader of THE PLANTER, though we have on our list several families who have had it continuously in their households ever since it was first issued in 1840, but we doubt whether we have now any other reader who has personally read it longer than Mr. Walton. Until a few years ago we had several subscribers living who had read the journal continuously since it was first issued, sixty-seven years ago. We hope our friend will yet be spared many years to have THE PLANTER sent to him.

THE REASON WHY.

Recently a bashful young woman from a backwoods county in Virginia went into a local store carrying three chickens. She inquired the price of chickens, and at the same time put them on the counter.

"Will they lay there?" asked the clerk, who did not know that the chickens' legs were tied.

She bit her handkerchief in embarrassment a moment, and said:

"No, sir; they are roosters."—December Lippincott's.

Harford county, Md., Sept. 25, 1906.

I am much pleased with the style and form of THE SOUTHERN PLANTER. Never discontinue your monthly advice and reminders. J. H. S.

A NOVEL REPORT.

The Superintendent of Streets in Cleveland recently summoned to his presence an Irish officer, to whom he said:

"It is reporter to me that there is a dead dog in Horner Street. I want you to see to its disposition."

"Yis, sor," said the subordinate, who immediately set out upon his mission.

In half an hour the Irishman telephoned his chief as follows: "I have made inquiries about the dog's disposition, and I find that it was a savage one."—December Lippincott's.

Nelson county, Va., Oct. 22, 1906.

I beg to express my hearty appreciation of THE SOUTHERN PLANTER as the best agricultural journal known to me. ALEX. Q. HOLLADAY.

Always mention THE SOUTHERN PLANTER when writing advertisers.

Order Now for Future Delivery The Only Way to be Sure of Getting a Detroit Tongueless Disc Harrow When You Want It

This is to notify farmers everywhere that we are now accepting orders on our Celebrated Detroit Tongueless Disc Harrow for future delivery. And that this is the only way we guarantee to make shipment of Harrows at the time they are wanted.

The Detroit Tongueless Disc Harrow (the only original patented Tongueless Disc)

Let Us Quote You a Special Price on the Detroit Tongueless Disc Harrow

We sell direct to the user. We'll save you all the middleman's profits. Our Harrows are not for sale by Dealers anywhere. Be sure to remember that. No dealer can sell you a Detroit Tongueless Disc Harrow.

We Allow 30 Days Field Test FREE

on every Harrow to prove that they are exactly as represented.

We pay all freight to your station.

Write at once for our FREE book and other valuable information.

Let us quote you a price on this Harrow.

We give extra dating on advance orders.

The Detroit TONGUELESS Disc Harrow is the most valuable improvement of the age

sold like wild fire everywhere last year—its first year on the market. So much so that we were returning orders every day, unable to supply enough machines.

Indications are that we will have even a bigger trade this year, and that we will have to refuse many orders in the rush of the season.

But—to all who send us advance orders we guarantee to make shipment at time requested, until further notice.

in an agricultural implement.

Front truck takes the weight of frame and controls movement of harrow. Double levers make easy handling.

Doing away with the Tongue does away with all side draft—all neck weight—all crowding of team in short turns. Saves horses and turns quicker on the corner. Ball bearings take the end thrust.

Other specifications and points of superiority fully explained in our free catalog.

Write us

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day and

get full

informa-

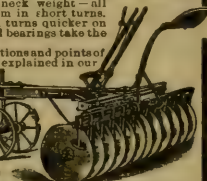
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Harrow. Address



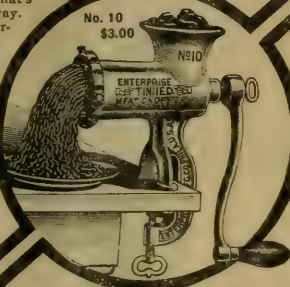
American Harrow Co., 6243 Hastings St., Detroit, Mich.

Two Ways of Sausage Making

The right way is to use a machine that cuts. That's the Enterprise way. Easy running and thorough, even cutting, just as coarse or as fine as you want it.

That means good sausage.

The wrong way is with a machine that grinds and crushes instead of cutting. That means hard, slow work, and stringy, uneven sausage. Make your sausage the right way with the Enterprise Meat and Food Chopper.



After sausage season, the chopper will be useful every day in the year for the preparation of other food.

Nothing can get by the four-bladed, revolving knife and pass through the perforated plate of an Enterprise Chopper without being actually cut—the cutting action is as positive as a pair of shears.

Sold by dealers in hardware and housefurnishings.

ENTERPRISE MEAT AND FOOD CHOPPER

Be sure the name "Enterprise" is on the machine you buy. Write for the "Enterprise Housekeeper," a book of 200 recipes. Tells you different ways to lighten labor with the Enterprise Food Choppers, Sausage Stuffers and other kitchen conveniences. Sent free.

THE ENTERPRISE MFG. CO. OF PA., 231 DAUPHIN STREET, PHILADELPHIA, PA.

When corresponding with our advertisers, always mention The Southern Planter.

CLUBBING LIST.

In this list will be found prices on papers, magazines and periodicals which are most called for by our readers. We have club rates with nearly all reputable publications, and will quote them on request:

Dailies. With

Alone, S. P.

Times-Dispatch, Richmond, Va. \$6 00 \$6 00

Times-Dispatch (without Sunday) 4 00 4 00

News-Leader, Richmond, Va. 3 00 3 00

The Post, Washington, D. C. 6 00 6 00

The Sun, Baltimore, Md. 3 00 3 40

Trice a Week

The World, New York. 1 00 1 25

Weeklies.

Times-Dispatch, Richmond, Va. 1 00 1 25

Central Presbyterian, Richmond, Va. 2 00 2 25

Southern Churchman, Richmond, Va. 2 00 2 25

Harper's Weekly 4 00 4 00

Breeders' Gazette 2 00 1 50

Country Gentleman 1 50 1 75

Hoard's Dairyman 1 00 1 30

Horseman 3 00 3 00

Semi-Monthly.

Kimball's Dairy Farmer. 1 00 75

Monthlies.

The Century 4 00 4 25

St. Nicholas 3 00 3 25

Lippincott's 2 50 2 50

Harper's Magazine 4 00 4 00

Delineator 1 80 1 80

Harper's Bazaar 1 00 1 40

Scribner's 3 00 3 25

American 1 00 1 25

Cosmopolitan 1 00 1 35

Everybody's 1 50 1 75

Munsey 1 00 1 35

The Strand 1 20 1 50

Madame 1 00 1 00

Argosy 1 00 1 25

Review of Reviews. 3 00 3 00

Field and Stream. 1 50 1 50

Women's Home Companion 1 00 1 25

Reliable Poultry Journal. 50 75

Industrious Hen 50 75

Poultry Success 50 75

Blooded Stock 50 65

Successful Farming 50 60

Amer. Fruit & Nut Jour. 50 75

Southern Fruit Grower. 50 85

Shepherd's Criterion 50 75

Commercial Poultry 50 75

When two or more publications are wanted, the price for them can be found by deducting 50 cents from "price with Southern Planter."

We cannot under any circumstances furnish sample copies of other publications.

We will cheerfully quote our best price on any list of publications submitted to us.

—THE NEW—

AMERICAN SAW MILL

VARIABLE FRICTION FEED
Ratchet Set Works, Quick Recorder, Duplex
Steel Dogs, Strong,
ACCURATE AND RELIABLE.

Best Material and Work-
manship, Light Running,
requires little power, am-
ple, easy to handle, won't
get out of order.

\$150.00 CASH
buys it as the cars at fac-
tory complete without
saw. Freight very low.

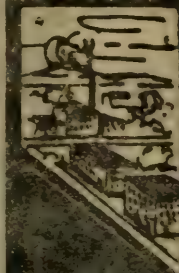
Seven other sizes made.

Warranted to cut 2,000 feet per day with 4 H. P. engine. Also Edgers, Trimmers, Shingle Machines, Lath Mills, Rip and Cut-Off Saws, Drag Saws, Cord Wood Saws, and Feed Mills. Catalogue sent free.

"Roxe, Mass., Oct. 24, 1906.—I have a No. 1 American Saw Mill and I send you an order for another just like it. I run it with my 4 H. P. portable gasoline engine; have sawed 5,000 feet of lumber in 19 hours with it without any trouble. I use a 48-inch saw.
Yours truly,
Bradley C. Newell."

AMERICAN SAW MILL MACHINERY CO., 137 Hope St., Woburntown N. J. N. Y., Office.
336 Engineering Bldg. Agents in Richmond, Norfolk, Lynchburg and Wytheville, Va.
THE WATT PLOW CO., General Agents, Richmond, Va.

RUBEROID ROOFING



STANDARD FOR 14 YEARS.

The oldest prepared roofing on the market, and the first Ruberoid Roofs laid, many years ago, are still giving satisfactory service under the severest climatic and atmospheric conditions.

Contains no tar or paper; will not melt, or tear. Acid fumes will not injure it.

Outlasts metal or shingles. Any handy man can apply it.

There is only one Ruberoid Roofing, and we sell it. You can verify its genuineness by the name on the label and on the under side of every length of Ruberoid Roofing. Send for samples and booklet.

A large stock of Corrugated and V. Crimp Roofing always on hand.

Southern Railway Supply Co.,
1323 East Main Street.
RICHMOND, VA.



CHRISTMAS

Groceries, Candies and Supplies.

To do your Xmas shopping economically, you must buy from us. We have long been recognized as leaders in low prices in our line. We print below some of our prices.

RAISINS, CANDIES, NUTS, ETC.

Loose Raisins, pound.....	.08	Good Mince Meat, pound.....	.07	or 3 pounds.....	.25
L. L. Raisins, pound.....	.10	Choice Mince Meat (18 pounds		Best Cream Bonbons, 9c. pound	
Seeded Raisins, pound.....	.10	to tail), pound.....	.10	or 3 pounds.....	.25
Figs (layer), pound.....	.10	Large Prunes, pound.....	.08	French Mixture, pound.....	.07
Figs (packages), pound.....	.10	Small Prunes, pound.....	.06	Best Mixture, pound.....	.12 1/2
Clitron, pound.....	.25	Evaporated Peaches, pound.....	.15	Butter Cup Candy, pound.....	.15
Orange Peel, pound.....	.15	Evaporated Apricots.....		Chocolate Drops, 15c. pound	
Lemon Peel, pound.....	.15	Dates, package.....	.08	or 2 pounds for.....	.25
Soft Shelled Almonds, pound.....	.20	Currants, package.....	.10	Broken Candy, 9c. pound or	
Shelled Almonds, pound.....	.40	Evaporated Apples, pound.....	.10	3 pounds.....	.25
Cocoanuts, each, 6 and.....	.07	Sun-Dried Apples, pound.....	.08	Cheap Bonbons, pound.....	.08
Mixed Nuts, pound.....	.13	Oranges, per dozen.....	.25	Stick Candy, pound.....	.08
Negro Toes, pound.....	.17	Lemons, per dozen.....	.25	Cut Rock Candy, 9c. pound or	
English Walnuts, pound.....	.18	Apples, peck.....	.30	3 pounds for.....	.25
Pecans, pound.....	.20	Shredded Coconut, pound.....	.15	Lemon and Mint Dice Candy,	
Filberts, pound.....	.15	Xmas Mixture Candy, 9c. pound		pound.....	.08

Staple Groceries, Feed, Wines, Etc.

Pillsbury Flour, per barrel....	\$5.25	Bran, per cwt.....	1.25	Five Year Old Gibson	
Gold Medal Flour, per barrel....	2.25	Shipstuff, per cwt.....	1.35	Whiskey.....	\$3.50 per gal.
Dunlop Flour, per barrel.....	4.50	Timothy Hay, per cwt.....	1.25	Five Year Old Moore's	
Obelisk Flour, per barrel.....	4.50	Clover Hay, per cwt.....	1.25	Corn Whiskey.....	3.00 " "
Daisy Flour, per barrel.....	4.00	Coarse Meal, per cwt.....	1.35	Five Year Old Star Rye	
Best Water Ground Meal, bushel	.70	Corn and Oat Chop, per cwt....	1.25	Whiskey.....	2.50 " "
New Irish Potatoes, per bushel.	.80	Straw, per cwt.....	.60	Five Year Old Keystone	
Granulated Sugar, pound.....	.05	Shucks, per cwt.....	.60	Whiskey.....	2.50 " "
Arbuckle's Coffee, pound.....	.17	Molasses Feed, per cwt.....	1.25	Three Year Old Excelsior	
Pure Lard, pound.....	.12 1/2	Corn, Oats and Wheat Sacks,		Whiskey.....	2.00 " "
Good Lard, pound.....	.10	extra.....	.05	Two Year Old Capitol	
Best Salt Pork, pound.....	.12	Peach Brandy.....	\$2.50 per gal.	Whiskey.....	1.50 " "
Good Salt Pork, pound.....	.08	Fine Catawba Wine.....	.50 " "	Five Year Old Virginia	
Cut Herring, dozen.....	.12	Fine Blackberry Wine.....	.60 " "	Mountain Whiskey.....	8.00 " "
Best Cheese.....	.18	California Port Wine.....	2.00 " "	Five Year Old North Car-	
Large Cans Tomatoes.....	.10	Good Port Wine.....	.60 " "	olina Corn Whiskey..	2.50 " "
100-pound Sack Salt.....	.50	California Sherry Wine. 1.00	" "	Three Year Old North	
Rock Salt, pound.....	.01	Imported Sherry Wine.....	3.00 " "	Carolina Corn Whis-	
Corn, per bushel.....	.65	Imported Port Wine.....	3.00 " "	key.....	2.00 " "
Oats.....	.45	Old Geneva Gin.....	2.00 " "	Jugs Free.	
Chicken Wheat, per bushel.....	.85	London Dock Gin.....	2.50 " "		
Small Cans Tomatoes.....	.08				

Prices subject to market changes; orders promptly filled and shipped; if in a hurry, 'phone your order. Remember, we are wholesale as well as retail dealers in Groceries, Feed, Wines and Liquors. If you don't see what you want, write for a complete price list.

Xmas goods quoted subject to being on hand when ordered.

J. S. Moore's Sons, Richmond, Va.

EIGHTEENTH AND MAIN STREETS.

The American Monthly Review of Reviews for December has the following table of contents: The Progress of the World; Record of Current Events, with portraits; American Cartoons of the Month; The Most Prosperous Period in Our History, by Richard H. Edmonds, with many statistical tables and diagrams; President Roosevelt and Corporate Wealth, by Arthur Wallace Dunn; American History and Mural Painting, by Edward Hale Brush, with illustrations; Eminent Foreign Composers as Guests of America, by Lawrence Gilman, with portraits; How the Kaiser Works, by Edward T. Heyn, with portraits; The New President of Brazil, with portrait of Dr. Affonso Penna; The New National Forest Reserves in the Southern Appalachian and White Mountains, by Thomas E. Will, with illustrations; The Electrification of Steam Railways, by William Maver, Jr., with illustrations; The Education Controversy in England, by W. T. Stead, with portraits; Leading Articles of the Month, with portraits; The Season's New Books, with portraits and other illustrations; The Season's Books for Children, with portraits and other illustrations.

WILLIE'S QUESTION.

Little Willie's sister was being baptized. Everything went well until Willie happened to catch a glimpse of the water in the font, when he began peering about anxiously, and finally exclaimed in a piping voice, audible to the whole congregation, "Where's the soap?"—December Lippincott's.

Louisa county, Va., Oct. 13, 1906.

THE SOUTHERN PLANTER is very instructive as well as entertaining to me.

W. R. GOODWIN.



Things Worth Knowing About Hay Presses.

DO you know that you can make mighty good wages for yourself and hire for your horses baling your own hay instead of letting out the job?

Do you know that the I. H. C. one-horse and two-horse full circle presses are about the most satisfactory machines ever built for doing your own work?

Do you know that both these presses are made mostly of steel and iron and that there is practically no breakage or wear-out to them?

Do you know that both presses are provided with extra large feed openings and that they are the most convenient of all presses to feed?

Do you know that with an I. H. C. press you can bale anything required to be baled and that you can bale from 8 to 12 tons a day and do it with a very small force?

Do you know that I. H. C. presses will bale timothy, clover, alfalfa, prairie hay, straw, husks, shredded corn stalks, pea vines, sorghum, moss or excelsior?

Do you know that I. H. C. presses are so constructed that even when bale pressure is greatest the pull for the team is no heavier and that the step-over is only 4 inches high?

Do you know that with the I. H. C. two-horse press you can have a bale chamber either 14 by 18, 16 by 18 or 17 by 22 inches and that the one-horse press chamber is 14 by 18 inches?

Do you know that with these presses you are always sure of neat, shapely bales, so compactly pressed that you can always get your minimum weight of ten tons into the car?

Call on the International local Agent or write for Catalog.

Farm Science is one of the best farmer's books ever published. Many practical farm subjects treated at length and by specialists from a practical and scientific standpoint. A copy mailed for three 2-cent stamps.

INTERNATIONAL HARVESTER COMPANY OF AMERICA,

(INCORPORATED)

Chicago, Illinois, U. S. A.

Fully Guaranteed.
\$16.50 special.
Cabinet
12 x 12, 6 in. high.
horn 24 in. long.



**\$16.50 BUYS GUARANTEED
\$16. A \$25 GRAMOPHONE**

This high-grade Gramophone we guarantee to reproduce the human voice as well as all instrumental music to perfection. This Gramophone has always been sold by us throughout the United States for \$25, but now, by a special arrangement with the makers, we can sell them, for a limited time, at \$16.50. Nothing makes a more acceptable holiday gift. ORDER IT NOW!

WE ARE HEADQUARTERS FOR TALKING MACHINES, RECORDS AND SUPPLIES. GRAMOPHONE PRICES \$16.50 to \$100. Send for illustrated catalogues to-day—better still, mail us your order for the \$16.50 "SPECIAL" outfit.

STEIN & CO., 7th, G and H Streets
(Dept 5.) Washington, D. C.

Tell the advertiser where you saw his advertisement.

ROCKBRIDGE PEERLESS PREPARED AGRICULTURAL LIME

Process Patented August 13, 1901.

Packed in 50 lb. Sack—Easy to Handle.

Can be Drilled With the Seed.

More Efficacious Than Air-Slaked Lime.

Address **ROCKBRIDGE LIME AND STONE CO., Lexington, Va.**

D. H. MILL, President

STRATTON & BRAGG CO., GENERAL AGENTS.

PETERSBURG, VA.

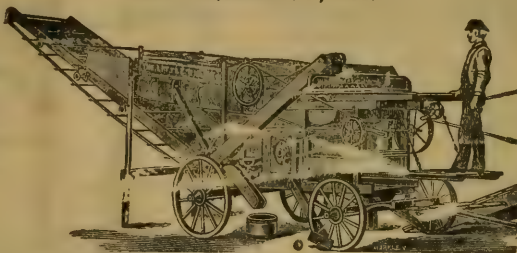
WEBBNER'S Little Giant and Pennsylvania

Peanut Pickers and Wheat Threshers.

They are built in first-class manner, and are strong and durable. The price is within the reach of all. We guarantee them to do the work satisfactorily. We will mail catalogue and testimonials, and quote prices on application.



This cut shows our 5 and 7 h. p. "Little Samson" Vertical, Automatic Engine for running threshers, peanut pickers, cutting feed, sawing wood, etc. Larger size also furnished.



CHASE SAW MILLS.

ERIE ENGINE WORKS

SIDE and CENTER CRANK ENGINES.

UNION IRON WORKS

Locomotive--Portable and Stationary BOILERS.

Prices and catalogue on application.

Floyd Stock Farm

Sidney Prince, 32932,

Record, 2:21 3/4.

BAY HORSE by Sidney, 4770, dam Crown Point Maid, by Crown Point, 1960, sire of Prince, 2:15 1/4 and 14 others in the list. Fee \$35. season. N. B. Sidney Prince is Virginia's leading sire of speed.

ROD OLIVER, 36169, Fastnut horse, 5, by Electra, 10878, dam Lady May, dam of Blondie, 2:19 1/4, etc., by Lord Leonard, 12863. Fee \$25 insurance.

MOKO Jr., 43871.

Brown horse 6, by Moko, 2447, dam Rosa Baron by Earl Baltic, 17724. Fee \$25. Insurance.

RED DILLON, 38696, bay horse, 4, by Baron Dillon, 17237, dam Linda Lake, by Red Lake, 25988. Fee \$20 insurance Address, FLOYD BROS., Bridgetown, Va.

DUNRAVEN STOCK FARM.

HACKNEY STALLION.

PATRICK HENRY, Chestnut Horse, 4, 1527, 1100 pounds, by "Squire Rickel," son of the Cadet; dam "Marjorie," a gold medal winner, by "Roseberry."

For terms address A. POLLARD & SONS, R. F. D. 5, Richmond, Va.

Richardson Bros.

613 BROOK AVENUE,
RICHMOND, VA.

CARRIAGE AND WAGON MNFRS.
LARGEST STOCK TO SELECT FROM.
Estimates Cheerfully Furnished.
REPAIR WORK A SPECIALTY.

JAMES C. SMYTH,
President.

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Vice-President.

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Secretary.

Smyth Bros.-McCleary-McClellan

Live Stock Company

UNION STOCK YARDS, NORFOLK, VA.

COMMISSION DEALERS IN

Horses, Mules, Cattle, Sheep and Hogs.

Having an extensive plant, with all modern improvements, we are prepared to handle live stock in any quantity.

HORSES AND MULES A SPECIALTY.

To dealers, lumbermen, railroad contractors and others we are pleased to furnish estimates on car-load lots or more.

Every facility offered for the transaction of a legitimate commission business.

CORRESPONDENCE SOLICITED.

AUCTION SALES ON WEDNESDAYS AND THURSDAYS EACH WEEK.

W. T. HUGHES, President.

M. L. T. DAVIS, Secretary and Treasurer.

THE MECKLENBURG

An Ideal open Summer and Winter Resort the year round; Splendid Sanatorium,

Dr. J. C. Walton, Resident Physician.

Many advantages combine to make the Mecklenburg the most favored health and pleasure resort in the South. Ninety miles south of Richmond, it is situated in the most beautiful section of the Old Dominion, with a climate well-nigh perfect. The hotel is new and modern, with large, airy rooms and elegant furnishings. Riding, driving, fox hunting, golf, tennis and many other amusements.

Mecklenburg Calcium Chloride and Lithia Waters

These two famous mineral waters received the medal and highest award at the St. Louis Exposition, the Mecklenburg Lithia Water also being awarded medal and certificate at Chicago World's Fair. The Mecklenburg Calcium Water is unique in its constituents and effects--differing from all other European or American water--and is guaranteed to cure eczema or any other skin or blood disease when taken under direction of resident Mecklenburg physicians. The Mecklenburg Lithia Water has cured Bright's Disease and is unsurpassed in the treatment of Nervous Dyspepsia, Indigestion and all Kidney and Liver troubles. The Mecklenburg Hydratic Baths are among the finest in the country, embracing the famous Shott system of Naheim baths. Send for free illustrated booklet.

THE MECKLENBURG HOTEL, Chase City, Va.



THE SIMPLEX PRESS.

We guarantee every press to be made of first-class material and of the best workmanship. We guarantee every press against defective material for one year. We guarantee every press to do all that is claimed for them.

The Simplex Press is designed for the individual farmer, or for one or two farmers together. It can be operated in limited space—on the barn floor often—and thus permits the work to be done during bad weather when it's impossible to work out of doors. It does not require a large force of men.

The Simplex can be used with two horses; a straight pull of ten feet compresses a charge, and springs return the plunger to its original position, bringing back the whiffletree, keeping the traces tight and guiding the team in backing.

The daily capacity of the Simplex ranges from four to seven tons of hay a day of ten hours. The amount will depend, of course, upon the workmen.

We guarantee these capacities can be reached with the same horse power used on any other horse power press.

The Simplex is made in two sizes—14x18 and 17x22.

Farm Machinery.



Wood Saws for long or short wood. Wood or Steel frame.

Write for special Wood Saw circular.

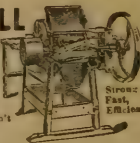
YOU SAVE IT ALL

••••• You save a corn crop for silage dry feed or ensilage with

THE ROSS

Ensilage Machinery.

Superior in material, construction and cutting ability. Many sizes. Eliminates any distance, in any direction at any angle. Don't wait! Send for Illustrated Catalog?



Write for our new Catalogue and prices. Mailed free with pleasure.

HENING & NUCKOLS,

1436-38 E. Main Street, RICHMOND, VA.



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